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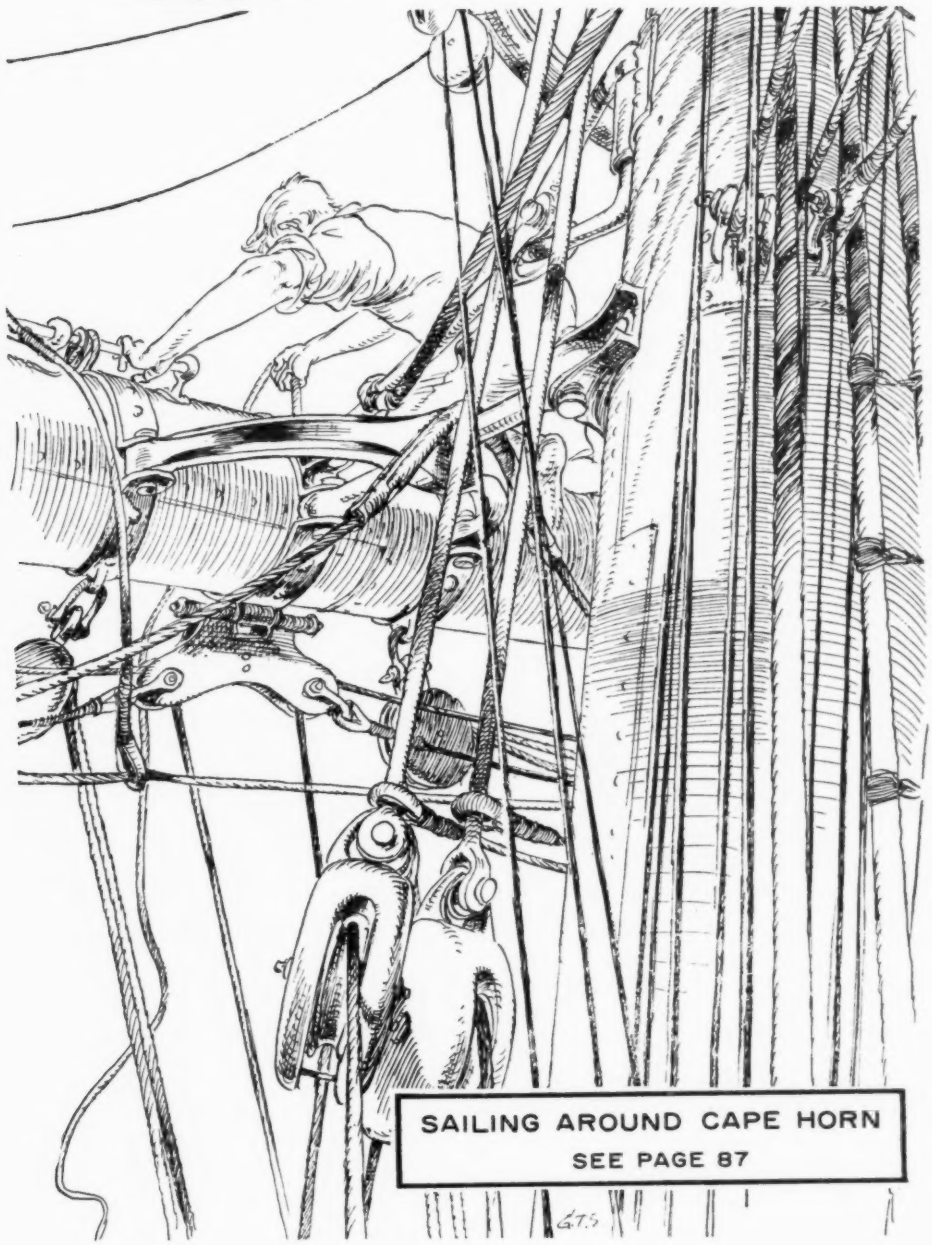
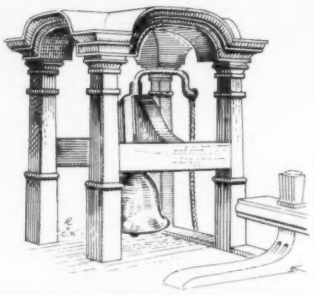
NAUTICAL RESEARCH JOURNAL



SAILING AROUND CAPE HORN

SEE PAGE 87



MEMBERSHIP NEWS

CURTIS A. BROWN - 255 South Marion Street, Oak Park, Illinois: advises he is a ship modeller interested in the clipper ship era, and is presently developing additional details on the FLYING FISH.

J. P. GRAHAM - 1418 South Delaware Street, San Mateo, California: is interested in old time ships and is presently a member of the San Francisco Chapter of the N.R.G.

ROBERT W. GROWDEN - 1270 Pine Street, Apt. 22, San Francisco, California: is a ship modeller interested mostly in the period between 1400 and 1600 (English and continental galleons and frigates of the era.

PAUL S. KNOWLES - 341 S.E. 2nd Avenue, Delray Beach, Florida: advises he is a member of the company of Military Collectors and Historians, and is a modeller of scale model cannon. He is interested in army and naval cannon prior to 1870 and sailing vessels of the same period.

ROBERT H. LOCHOW - 26 Farm Road, Trenten 8, New Jersey: is a model builder and member of the Puget Sound Marine Historical Society. His period of research extends from 1700 to 1850, preferably U. S. Naval sailing craft and ships that played a part in the developing of the Pacific northwest history. He is presently doing research to construct a model of the U.S.S. DECATUR, a sloop-of-war built circa 1839.

LEE H. NICHOLSON - 500 E. 41st. Street, Paterson 4, New Jersey: is another clipper ship devotee - particularly of the LIGHTNING and the NIGHTINGALE. He also models American fishing and small coasters of the 19th century.

WILFRED TASHIMA - 30 Irving Street, Apt. 44, Cambridge 38 Massachusetts.

VICTOR LE WARD - 601 Al Dean Place, Newport Beach, California: informs of us he is a marine surveyor, naval architect and model builder. He is a member of the San Diego Model Yacht Club, and is also a builder of full sized boats.

CHANGES OF ADRESSES

H. JAMES CAULKINS - c/o American Cyanamid Co., Wallingford, Connecticut
CLARENCE E. COFFIN, JR. - 566 "B Avenue, Coronado, California
JOSEPH F. KOSTALIK - 1800 Bellflower Blvd., Long Beach, California
L. L. LUTHGREN - 5 Oakland Street, Wilbraham, Massachusetts
PVT. S. S. MACNAUGHTON - 1900873 - BCO, 9th Bn., 3rd Mar. Div., FPO San Francisco California
CAPT. P. A. MCDONALD - 425 Washington Avenue, Santa Monica, California
CAPT. JOHN W. MORONEY - 1577- B, White Drive, Rantoul, Illinois
MAJOR GEORGE S. PATTON- 028685-Hg 1st Sqdn., 11th Armd Cav. Regt. SPO 305, N.Y., N.Y.

DR. EDWARD F. SCHORTMAN - 85 Indian Head Road, Riverside, Connecticut.
RICHARD T. SHAYLER - 4044 N. Keystone Avenue, Apt. 2-W, Chicago 41, Illinois
CAPT, THOMAS W. SHERIDAN - St. Albans Naval Hospital (AD5) Linden Blvd. St. Albans 12, New York
HAROLD A. SWARD - 3210 Riverland Road, Ft. Lauderdale, Florida
FRANK W. THOBER - 150 Draper Lane, Dobbs Ferry, New York
WILLIAM A. TOBIN - c/o F. Allinger, Shadyside, Maryland

DEATHS

Eric H. Swanson, one of the last of the windjammer seaman's marine artists and a charter member of the San Francisco Nautical Guild, died October 17 1960. He was 68 years old.

Mr. Swanson took a leading part in the work that led to the formation of the Maritime Museum of San Francisco. He was an excellent craftsman. The best-known example of his unique ability is the large model of the five-masted PREUSSEN, a ship model which has been admired by hundreds of visitors to the museum. His death will be regretted by all who knew him.

I want to sell the following books: By Lubbock - "The Opium Clippers" ($3.50); "The last of the windjammers" - 2 Vols. ($10.00); "The China Clippers" ($3.50; "The Colonial Clippers" ($4.25); By Underhill - "Sailing Ship's Rig and Rigging" ($1.75); By Greenhill - "Merchant Schooners", Vol. 1. ($4.00); By March- "Sailing Drifters" ($7.50). The above are all new, all in their dust jackets.

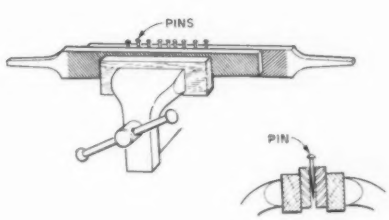
By Montaine - "The Seaman's Vade-Mecum", 1757. 2 plates 2 leaves missing; contains bookplate of Richard Brinsley Sheridan, the dramatist ($5.00). By Fincham - "A History of Naval Architecture", 58 plates, one hinge starting to crack. ($15.00)

-D.L. Dennis
1625 St. Clair Avenue
St. Paul, Minnesota

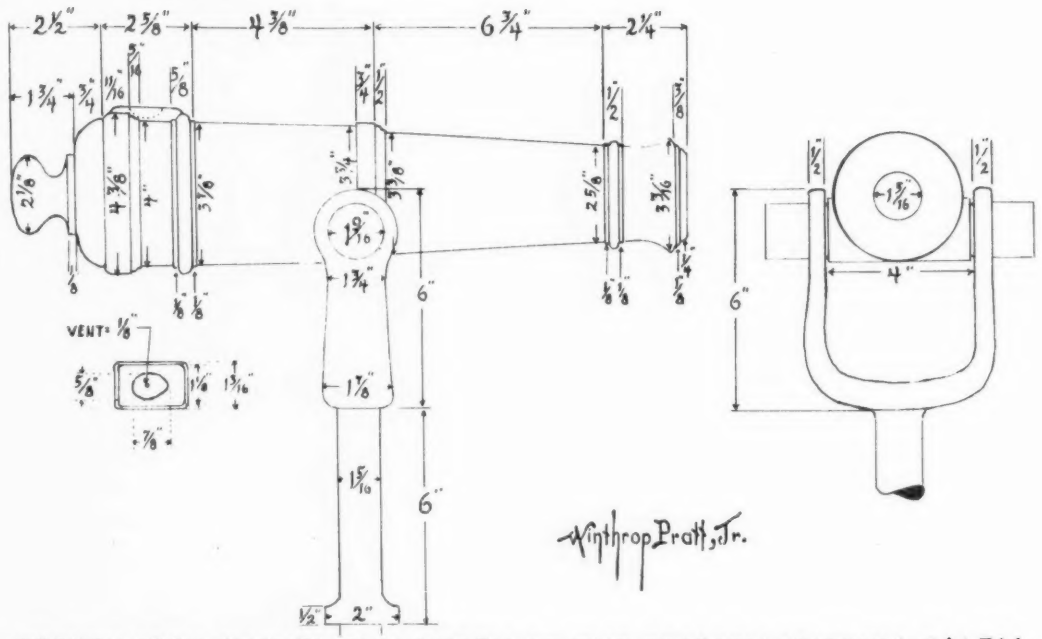
Having severed my connections with the Maritime Museum of Canada, I would like to sell my 15 scale models of old and modern ships. Among them are; H.M.S. VICTORY, H.M.S. FURY (1813), H.M.S. RENOWN, R.M.S. QUEEN MARY, H.M.S. DIOMEDE, a four-masted bark and a three-masted schooner.

-Capt. C.W. Gilding
17 South Park Street, Apt. 9
Halifax, Nova Scotia, Canada

Quite a while back there were several items in the Journal on how to roughen-up lill pins so they would hold better in wood. I tried these, but they took too long. I then accomplished the job in this manner. Two fairly fine cut files were placed in a vise, with the tangs reversed. After inserting about two dozen lills between the files, the vise is tightened and one of the tangs is struck sharply with a hammer. This is a quick operation, all to-gether, and when the lills are driven in hardwood it is almost impossible to draw them out.

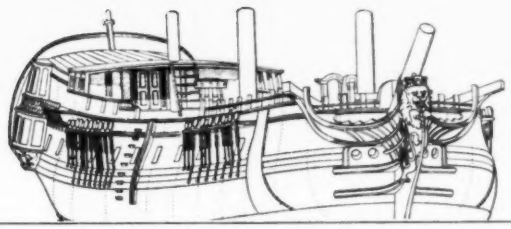


-George B. Cadwell, Jr.



Winthrop Pratt, Jr.

FRENCH IRON SWIVEL GUN & FORK AT THE PEABODY MUSEUM, SALEM, MASSACHUSETTS · 18th CENTURY DESIGN · PROBABLY FIRED A 6 or 8 oz. BALL.



* A Chicago reader, while he was here in New York some weeks ago, called me up and described several jigs and other devices he had developed for making model fittings. They were entirely new to me and I found them very intriguing. Since this man obviously wanted to share his ideas with others, I asked him to put his thoughts on paper. He was a little hesitant about when he could get around to it. After awhile I perceived that what was really holding him up was the lack of a typewriter. As soon as I understood that was the obstacle, I told him to forget the typing, of course, and write the article in longhand.

Now I am wondering if many more readers have been intimidated into silence by the spectre of a typewriter. Of course typing is easier to read than hand-writing, but that does not mean much in the long run. The main thing is what actual information is conveyed. As long as I can read the material, nothing else matters very much. If you get it down in black and white, I will read it. (And while discussing this subject, perhaps someone may be interested in learning that I am undoubtedly the world's worst typist. When I sit down in front of the machine it is like climbing into the ring to face the heavyweight champion. Up to now, the machine has won every round.)

* Willis L. Nye, who served the Guild for many years as Membership Chairman, has been forced to relinquish the position so that he can devote more time to his personal business. As his friends on the Pacific Coast know, the task of discharging his Guild responsibilities during the past year caused him no little inconvenience. I am sure they all understand why he felt he must resign, and join me in thanking him for his long assistance to the Guild.

Arthur R. Sawers has graciously consented to become the new Membership Chairman. He has been a member for some years and I am glad to see him take a more active role. Under his direction we hope to inaugurate a program which will introduce the Guild and the Journal to a much larger audience. Meanwhile, of course, we must rely on the present members to continue to call the Journal to the attention of their acquaintances and correspondents. In those cases where you feel that you cannot follow up a lead, please contact Mr. Sawers and he will send the potential member a specimen copy of the Journal and explain the benefits to be gained by joining our organization. Write:

Mr. Arthur R. Sawers
Bern C. Ritchie & Co.
105 So. La Salle Street
Chicago 3, Illinois

* I recently read that the authorities at Baltimore who are supervising the restoration of the CONSTELLATION have found evidence in the old ship that indicates she really is the CONSTELLATION. If this sentence appears to be an exercise in theoretical logic, than let me add this is the latest broadside to be fired in the controversy that began when suggestions were first made for saving the vessel. As just about everyone knows, Howard I. Chapelle studied this problem in his "The American Sailing Navy", (1949). His theory, in short, is this: The original CONSTELLATION was broken up in 1852, and the various sums appropriated by Congress over

several years for rebuilding her were used to construct an entirely new vessel of the same name but of different dimensions and model. This was a practice resorted to by the Navy during the 1800's when Congress refused to authorize new vessels to replace obsolete ones.

This question will have to be settled sooner or later. Either she is the frigate of 1797 or the corvette of 1855. For the sake of arguament here let me say that she is the CONSTELLATION built in 1855. There still remains sufficient reasons for restoring her. If nothing else, there are not so many sailing ships still around that we can afford to abandon her, Personally, I can appreciate the efforts of those who have taken on the responsibilities of saving the ship. The CONSTELLATION is in a pathetic condition. The work of rebuilding her is not going to be easy. And regardless of whether she emerges as a ship of 1797 or one of 1855,criticism is going to be heaped on her restorers. It happens with every reconstruction.

Unfortunately, right now these men are already undermining public sympathy and confidence. I should think they would welcome publicity which would increase the support of people everwhere concerned with saving the last of the sailing ships. I know several who have been rebuffed by the veil of secrecy that hovers over the project. While Baltimore continues its campaign to raise money by selling medals for $1.00, some of those who responded have encountered this same obstacle. An Englishman wrote me this past summer that after failing to receive the medal, he made four enquiries but did not receive the courtesy of a single reply.

* Because of space limitations for the book reviews, I have to draw a line in every issue and say no more for now. Among those omitted this time was "The Annual Dog Watch" - No. 17". This lively little publication has readers just about everywhere, I guess. If you have not run across it, here is a good chance to get acquainted. It is published by the Shiplover's Society of Victoria, Box 1169K G.P.O. Melbourne, Victoria, Australia. (Price 5 shillings net.) It is mostly recollections of sailing ship days, written or edited by the men who manned the ships or their decendants, from old letters and diaries.

This number of the "Dog Watch" has 144 pages. Over fifty firms have taken advertising space, a sure sign of their support. If proof were needed, the "Dog Watch" is ample evidence of what can be accomplished by people banding together and channeling their efforts into an effective force.

-Roy Rogers, Editor

THE NAUTICAL RESEARCH JOURNAL is published by members of the NAUTICAL RESEARCH GUILD. Membership dues are $5.00 per annum and include all issues of the Journal published during the year, plus index of the current volume and a copy of the latest Membership Roster. New members receive the numbers which have been previously issued in the current year.

Dues are payable January First of each year and are in force until receipt of the written resignation of the member. Opinions and assertions in the Journal are the private ones of the writers. All rights are reserved and no material may be reproduced without the written permission of the Editor.

The NAUTICAL RESEARCH GUILD is a non-profit and co-operative organization founded in 1948 by Harry D. Hamilton. All income of the Guild is used to defray publication and business expenses of the organization. No officer or member receives any monetary compensation for his contribution.

THE SEARCH FOR THE MALABAR

BY NORMAN N. RUBIN

PART 1

It was 1955. The old house was in its hundredth year, and everybody had moved on and left it. While cleaning it out prior to selling it, we found many odd and interesting souvenirs of bygone generations. One was a copper cylinder about an inch in diameter and twelve inches long. Inside was a scroll "... Empire Francais... Pasf-port a l'Etranger... Jacques Metzger, age de 57 ans, accompagnees de sa femme, cinq enfantes, et une domestique.....AU NOM DE L'EMPEREUR...." On the back was a note, "Malabar, Havre 29 Aout 1863".

If MALABAR was the name of the ship on which old Jacques had traveled, it would be an interesting subject for a model. The first places checked were the New York "Herald" and the "Commercial". They list the French ship MALABAR, left Havre September 1, 1863, and arrived New York on Saturday, October 24, docking the following Monday. The captain was Outre, the agents C. C. Duncan & Co., and the tonnage 815.

An obvious place to look was the Lloyd's Registers. They list:

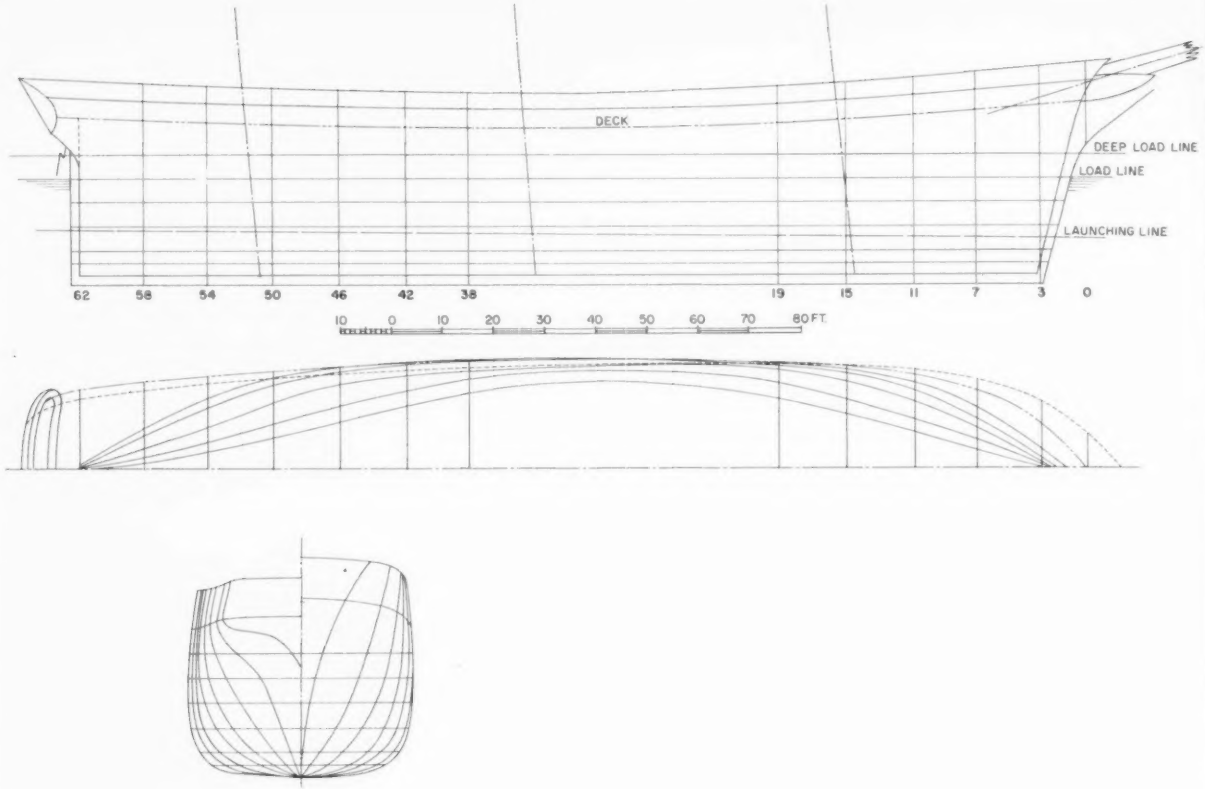
MALABAR, ship, 686 tons, built Quebec 1835
MALABAR, ship, 1322 tons, built Quebec 1845
MALABAR, ship, 1219 tons, built Sunderland 1860
MALABAR, ship, 1175 tons, built Quebec 1845
MALABAR, ship, 1658 tons, built Damariscotta 1853
(ex-OCEAN HERALD, sold French 1856)
MALABAR, ship, 373 tons, built Greenock 1835

"Mitchell's Maritime Register", Wallace's "Record of Canadian Shipping", correspondence with the India Office Library, Les Amis des Musees de la Marine, Science Museum (London), Chambre de Commerce de Marseille, Secretariat de la Province de Quebec, Nautical Photo Agency, Ministere des Armies, National Maritime Museum (London), and various other sources including the London "Times", give us:

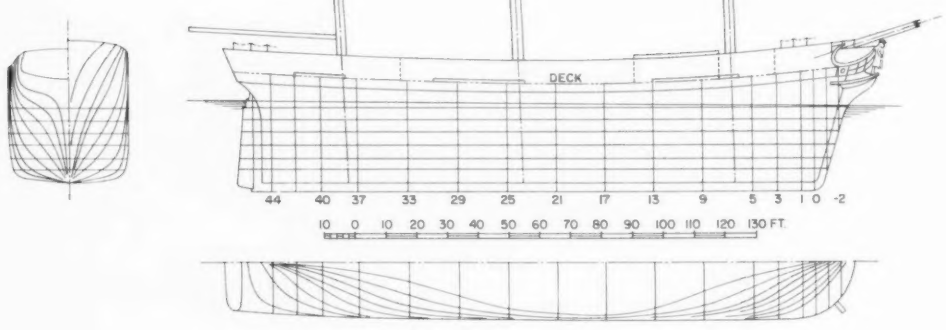
MALABAR, ship, 443 tons, Bordeaux
MALABAR, steamship, French, 1860
MALABAR, ship,968 tons, built Quebec 1845
MALABAR, ship, Indiaman 1820
MALABAR, steamship, British
MALABAR, barque, Hamburg
MALABAR, sloop, North River

The name seems to have been a popular one, but our 815 ton ship does not appear on the list. However, the Registers of the Bureau Veritas and of the American Bureau of Shipping do list the 815 ton MALABAR. Both Bureaus advise that they have no drawings or data other than what appear in their Registers:

1856: launched at Quebec (no shipyard mentioned)
1859: surveyed at Havre
1860: owned Havre by E. Quesney Bros.; master A. Labbe
1861: surveyed Havre, class A2. Quesney; Labbe
1862: owned Havre by Lockhart & Co.; master A. Outre
1862: surveyed New York in February, Havre in November
1866: owned Havre by Lochart (sic) & Co.; master Outre
1867: owned Havre by P. Puelve & Co.; master Outre. Surveyed April and November in San Francisco. Metalled in December
1868: owned Havre, Puelve; Outre. Surveyed October in Bordeaux



SHIP TRICOLOR OF 1855



SHIP MARCO POLO OF 1851

1869: A. Reinhart owner. Deck cabin and hang knees repaired
1871: owned Havre by Reinhardt & Dieterich; master Outre
1872: owned Havre by Reinhardt & Dieterich; master Outre. Repaired and metalled in June. Surveyed in San Francisco.
1874: owned Havre by Reinhardt & Dieterich; master Outre
1876: owned Toulon by Reinhardt & Dieterich; master Outre
1885: dropped from Register without explanation

The Registers also state that she was built of oak and hackmatack with iron knees, copper and iron fastened. She was of "full" model with two decks and what was variously described as a house cabin or poop-cabin or deck cabin. She was ship-rigged and her dimensions appear as 163x28.9x22.3 with 20' draft or 161.5x28.9x22.3 with 19' draft.

The Entry and Clearance Reports of the ports of New York, San Francisco, Boston, Philadelphia, Baltimore, and New Orleans are filed in the National Archives. They were inspected for the period 1856 to 1885 with the following results:

1863: Leave Havre August 29th, arrive New York October 24th; Agents C. C. Duncan. 151 Passengers.
1866: Leave Bordeaux October 13th.
1867: Arrive San Francisco March 12th; consignee R. E. Anger. Crew 25.
Leave San Francisco March 19th for Hong Kong. Crew 24.
1869: Leave Bordeaux January 23rd. Arrive San Francisco June 30th; consignee Morris Speyer. Crew 23.
1870: Leave Ancon, Peru,June 4th, arrive San Francisco August 1st. consignee Hellman Bros. & Co. Crew 18.
Arrive San Francisco December 9th from Port Townsend, Wash. (The record says "Port Tennscom, W. I.")
Leave San Francisco December 11th, for Callao. Crew 19.

The San Francisco Chamber of Commerce forwarded the astonishing news that a member of Speyer's firm was still alive (early in 1960). Correspondence with the family, however, indicated that the old gentleman had no recollection of events of the last century.

The British "Mitchell's Maritime Register" is in process of being read page by page for the period 1856 to 1885. Unravelling the comings and goings of the various MALABAR's and correlating them with information from other sources, we find:

1856: Arrive London October 2nd from Quebec.
Leave London October 30th for Rio de Janeiro.
1857: Arrive Rio de Janeiro February 6th.
1858: Spoken February 15th at 51N, 80E, enroute to India; master Labbe.
1860: Mauritius to Marseilles, March-June. Spoken in December at 15-43S, 33-28W, headed south.
1863: Passed Anjer February 15th from Macao for Havana.
Spoken June 12th at 44-49N, 37-34W, from Havana for Havre.

It is believed from correspondence with the University of Florida, the St. Augustine Historical Association, the Florida State Historian, and the editor of the Titusville "Star-Advocate" that the Florida east coast town of Malabar was settled in 1873 or 1875 by New Englanders who chartered the MALABAR to bring them south, then named the town after the ship. The Peruvian Embassy advises that records in Callao were destroyed in the Pacific War of last century. South American newspapers are not locally available, so a search has been instituted in the libraries of Chilean universities.

Correspondence with the archivist of the Port of Toulon discloses:

1859: "Francise" August 15th at Havre.
1869-72: San Francisco-Peru-Cuba.
1872: Bourbon-Mauritius-Pondichery-Marseilles.
1873: Arrive Marseilles August 15th. Registered Toulon September 25th.
Leave Marseilles September 30th; master Calvet.
1874: Arrive La Seyne March 6th; master Calves (sic). Leave La Seyne April 23rd.
Arrive St. Malo September 28th.
Leave December 12th; master LeRoy.
1875: Arrive La Seyne August 14th.
Leave Toulon October 30th; master LeRoy.
1876: Arrive Toulon April 18th.
Leave June 16th for Pensacola; master Moretti.
Arrive Toulon November 18th.
1877: Leave Toulon January 3rd, for Pensacola; master Moretti.
Arrive Toulon June 24th; master Moretti.
Leave Toulon July 19th; master Moretti.
1878: Arrive Toulon February 2nd.
Leave Toulon February 27th for Pensacola; master Flachet.
1879: Arrive La Seyne August 14th.
Leave May 15th (sic) for St. Pierre et Miquelon; master Flachet.
1800: Arrive Marseilles February 8th.
Leave La Seyne April 21st.
Arrive La Seyne September 8th.
Leave La Seyne October 19th; master Populaire.
1881: Arrive La Seyne May 30th.
Leave La Seyne August 23rd; master Populaire.
1883: "Exporte" January 16th.

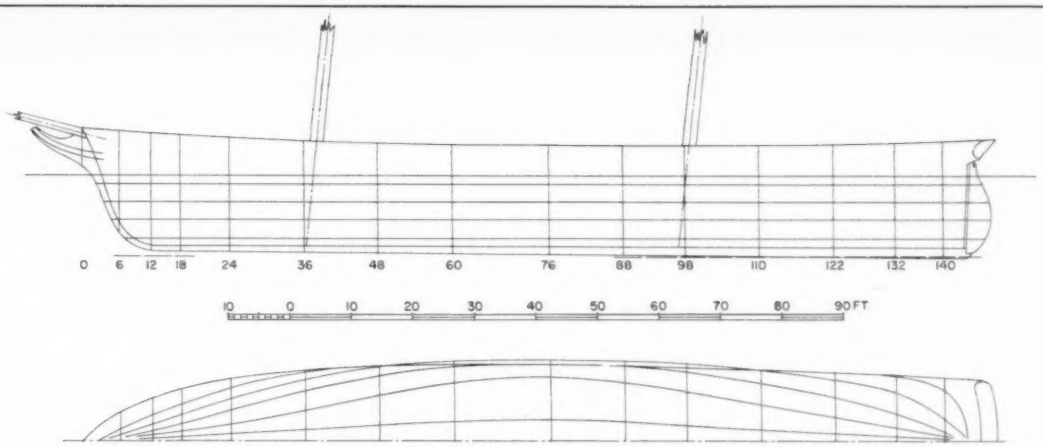
The Mobile "Daily Register" yields some fragments:

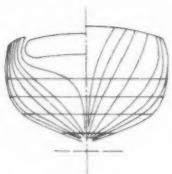
1881: November 10th, bark MALABAR, Populair (sic) of Toulon, arrived Mobile from Marseilles. December 29th, cleared for Lazagin (La Seyne?)

The New York "Maritime Register", not fully explored because of unavailability in local libraries, has the following:

1879: Arrive Pensacola January 20th, from Toulon; bark; master Herve.
Leave Pensacola February 17th for Gilbraltar.
Arrive Toulon April 15th.
Arrive St. John, N.B. October 14th from St. Pierre; bark; master Flachett (sic).
Leave St. John November 3rd for Marseilles; towed into Lisbon December 15th; leaky.
1880: Arrive Marseilles February 8th.
Arrive Escoumains, Canada July 2nd.
Passed Tarifa for Marseilles on August 24th.
1881: Arrive Mobile January 7th from the Mediterranean; master Populaire.
Leave Mobile March 31st for Gibraltar.
Arrive Toulon May 29th.
1882: Leave Mobile for La Seyne January 16th; master Populairo (sic).
Arrive La Seyne March 15th.

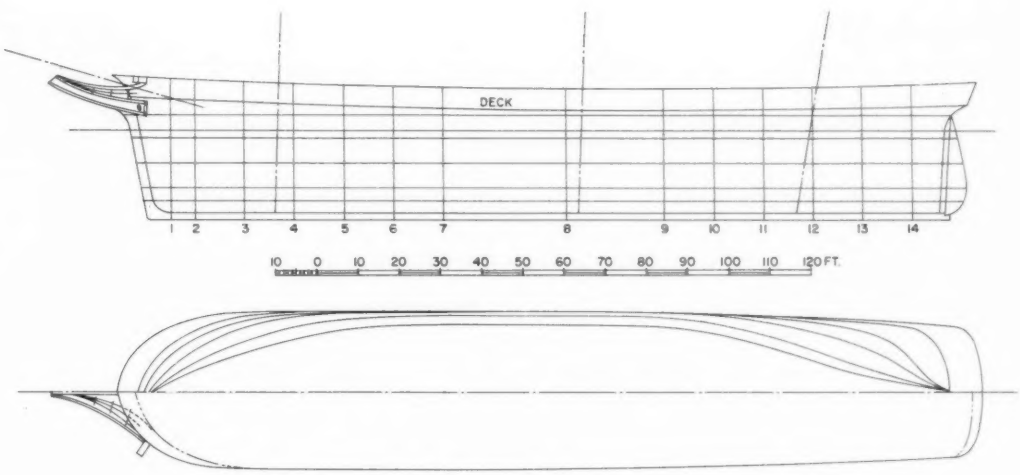
Further sources to be pursued are the New York "Commercial", the San Francisco "Bulletin", Havana "Diario de la Marina", and Quebec "Gazette". Identification of

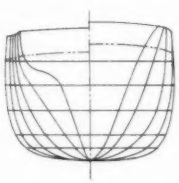




BRIGANTINE OF 1884

(FROM SMITHSONIAN MODEL NO. 76093)





COTTON SHIP OF 1884

(FROM SMITHSONIAN MODEL NO. 76094)

obscure geographical spots has been expedited by reference to "Webster's Geographical Dictionary" and to the "Encyclopedia Brittanica World Atlas".

Many of the sightings in the various Registers are reported by flag or sail code. The "Liste de Batiments de la Marine Francais et leurs Signaux", 1856, gives the flag code for the MALABAR, KCDL. The sail codes, consisting of letters and numbers appliqued to the topsails, are not yet understood; some data on the MALABAR may yet be abstracted from this source. The chronology of the travels of the MALABAR give an idea of the cargo, hence the structure, of the ship. Trips to Mobile, Pensacola, and Escoumains were probably for lumber, and predicate the existence of bow loading ports. Trips involving China, Cuba, Peru, San Francisco, and the Indian Ocean probably had to do with Chinese and Indian coolies. (There was a good traffic from San Francisco of homeward bound Chinese who had helped build our first transcontinental railroads; see the "International Labor Review" of November, 1956, and the report of the Congressional Committee to Investigate Chinese Immigration, February, 1877). Certain deck arrangements of vessels carrying immigrants were rigidly controlled by law towards the end of the last century. Operation in tropic waters required metalling. And the changes in crew size are indicative of the installation of various labor-saving devices and changes in the rig.

Although the existence of the MALABAR has been abundantly demonstrated, there is little data on her physical appearance, such as would be needed to permit a model to be built.

There is a quaint little book by a former Quebec shipbuilder, Narcisse Rosa, titled "La Construction des Navires a Quebec et ses Environs". It lists for 1856: 48 launchings by ship name, tonnage, dimensions of hull, and name of builder. No MALABAR appears on the list of 26 ships, 5 brigantines, 1 brig, 13 barks, and 3 sloops. In correspondence, captain F. W. Wallace suggested that because many of these ships were sold in Liverpool and renamed, search should be made by size and not by name. In Rosa, we find five ships of about the right size, built by Thomas Conrad Lee in 1856 and 1857. They were the INDIANA, MISSISSIPPI, MISSOURI, MINNESOTA, and MICHIGAN. Some of these were built for a Quebec-Liverpool packet line; others were loaded with timber (hence the term "timber-ship") and sold at auction at Liverpool after the timber was sold. This had been an established practice for Quebec shipbuilders, but according to Wallace, so many vessels were built in 1854 in British North America for sale in England that the market was saturated and prices slumped. The MALABAR's record indicates that she was operated by her original captain, Labbe, for three years before being sold French. The name Labbe is common in France and in French Canada, but study of phone books and directories show odds of about 75 to 1 that the MALABAR's Labbe was a Canadian. One of the minor shipbuilders of Quebec was Ferdinand Labbe. It is possible that A. Labbe was a brother or son, and that Ferdinand was a member of the group which financed the construction of the MALABAR. It seems logical that, finding the ship market dull, the owners decided to operate the ship until the market picked up. In any event, all of Lee's vessels listed by Rosa are listed concurrently with the MALABAR in the Registers, so they must all have been separate entities. A half-dozen other vessels of about the same size show similar results.

Wallace says in his books that some vessels were built on the Great Lakes and floated down to Quebec to be sparred, rigged,and registered. There are several canals and locks around Niagara Falls and the rapids of the St. Lawrence. We find in the 1956 "Transactions of the Society of Naval Architects and Marine Engineers" and Cuthbertson's "Freshwater" that during the 1850's the Welland locks had a length of only 150 ft. which would not have passed the MALABAR. The river locks were 200 ft.x 45 ft.x 9 ft. Consideration of the launching drafts of vessels of similar size to

the MALABAR indicates that, even without spars, anchors,or other gear aboard, the hull would have had difficulty negotiating a nine foot deep lock. The MALABAR must have been built at Quebec or on the river between it and Montreal. There was not much activity along the river, so Quebec seems the likely spot.

A possible source of information on the origin of the MALABAR would be the daily shipping news in 1856 Quebec newspapers. Local libraries could not help, but a visit to Quebec City provided opportunity to inspect the files of the Quebec "Gazette" and the "Mercury" in the library of the Provincial Museum. The list of launchings from the first one in mid-May when the ice went out of the river to the last one in mid-November when the river froze again, corresponds nicely with Rosa's list, except that both papers report an un-named vessel launched from the yard of T. C. Lee in mid-May. This vessel is not listed by Rosa. The papers account for all the rest of Lee's ships by name. This un-named ship may well have been the MALABAR. It may be noted that only one vessel is listed as having been built up-river for Quebec registry. It was a schooner of 126 tons, which could easily have transitted the locks.

Knowing the shipyard is a step forward, but we still do not know what the ship looked like. The Quebec directory for 1849 lists Lee's shipyard as being on Dalhousie St., below the ramparts. This is a vantage point for photographing the river. If anybody had set up a camera there in the winter of 1855-1856, he would have had a picture of the MALABAR on the stocks in the foreground. Also, there is the chance that a photograph of one of the various ports in which the MALABAR found itself at various times might include the MALABAR. The photographic processes of Daguerre and Talbot came into use about 1840, so that we could logically expect to find photographs dated 1856 and later. The process of printing photos in newspapers and magazines dates from the development of photo-engraving in 1854. Most periodicals continued to use line-engravings (hand sketches) for some time after 1854, so that periodicals are not too promising a source. Photo collections might offer possibilities. French military intelligence encouraged the making and filing of photos of all ships entering French ports. Most of the negatives are now filed in the Maritime Museums of Paris, Marseilles, Toulon, and other port cities, and in photographic firms with historic continuity. Communication with these sources has not yet disclosed a picture of the MALABAR. The card index of the Photographic Division of the Library of Congress was searched. Pertinent items were reviewed to no avail.

The agents are no longer in business in New York or San Francisco, and the French commercial attache says that none of the owning firms are in business in France. If descendants of any of these people could be located, they may possibly have records or photos or paintings of the ship. An advertisement is presently being prepared for Toulon newspapers. There are nine Lees in the Quebec phone book, but no connection has been found with T. C. Lee, nor do the records of the major religious demoninations offer any word. We learn from Wallace's books that William Power of New York was a designer for Lee; an avenue of investigation may lie in this direction. Power is said to have served his apprenticeship in New York shipyards. Identification of the yard may give a clue to the ideas which influenced his style. The records of Webb Institute, the New York Genealogical and Biographical Society, and the Marine Museum of the City of New York do not mention him. From "The Rise of New York Port, 1815-1860" by R. G. Albion, we get a list of New York shipyards of the 1840 period. The lines of the various vessels designed and built at these yards were got by going through "The History of American Sailing Ships" (Chapelle); "Treatise on Marine and Naval Architecture" (Griffiths); Webb's book of drawings; "Greyhounds of the Sea" (Cutler); "U.S.Nautical Magazine and Naval Journal"; "Shipbuilding Industry of the U.S." (Hall). Statistical analysis of various aspects such as shape and proportion of rudders, rake of stem and stern, rake and placing of masts, sheer, etc. indicates that Power's work was probably most influenced by that of Webb. Correlation is still being pursued.

If nothing can be turned up on the MALABAR it will be necessary to attempt to synthesize her. What did Quebeckers of the period look like? The Smithsonian photos in the Watercraft, Cropley, and Langdon collections have no Quebeckers. Wallace's books "Wooden Ships and Iron Men" and "In the Wake of the Wind Ships" yield photos of several ships and textual clues. The "U.S. Nautical Magazine and Naval Journal" of 1855 has lines, scantlings, and spar dimensions for the Quebec timber ship TRICOLOR. She was a ship of 1239 tons built by H. N. Jones to Griffiths' ideas. In the Smithsonian are half-models of a cotton ship of 1650 tons and a brigantine of about 220 tons, both by Power. With the cooperation of the Museum, lines have been taken off these models. Records indicate that they were shown at the New Orleans fair of 1884. Wallace mentions that some of Power's models won gold medals in the Paris exposition of the fifties. To date, correspondence with the New Orleans "Times-Picayune" and the Musee de la Marine, and search in records of the New Orleans World's Industrial and Cotton Centennial Exposition of 1884-1885, Exposition Universelle de 1851, the Exposition Universelle de l'Industrie, 1855, and the Limoges Exhibit of 1858 do not disclose mention of awards to Power or Lee. The question is still open. It is known that the lines of cotton ships became increasingly sharper from the eighteenth through the nineteenth century. We have from Hall's book the lines of the SAONE, a cotton ship of 1846. The " U.S. Nautical Magazine and Naval Journal" gives us a cotton ship of 1856 by Phineas Pett. The Pett design is sharper than the SAONE, and Power's model is 30% sharper than Pett's, and may therefore well be 30 years later.

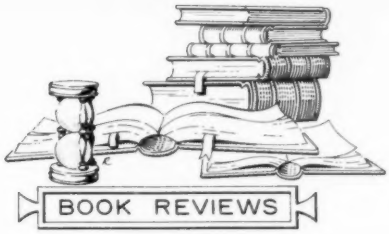
The Mariner's Museum has a half model of the timber ship MARCO POLO built at St. John in 1851. She later went on to make a name for herself, but began life as one of many British North America timber vessels. Her lines are only about 5% sharper than the TRICOLOR's, and about 10% sharper than the MALABAR's. Her speed was apparently more a result of the way she was sailed than the way she was built.

The Record of the American Bureau of Shipping for 1860 has construction drawings of a ship of about 800 tons which should give a clue to the scantlings of the MALABAR. The sister ships of the MALABAR mentioned earlier have been pursued through Lloyd's, the Nautical Photo Agency, and the Liverpool Chamber of Commerce without yield. The chase is still on. Others of Lee's and Power's ships are listed in various sources, and have been pursued without result.

To be continued

SHIP PLANS INDEX: Some years ago we had two departments which provided additional services not furnished directly in the Journal. One of these was a Ship Plans Index (to use the current title). Information on a large number of plans was collected and was available to any reader upon request. He could quickly learn from this one source if plans of a certain vessel were available, how complete they were, and other useful data. The Ship Plans Index is now being reactivated by Max L. O'Starr. It will require some time and he will appreciate hearing from anyone with suggestions for locating drawings, especially those in books, magazines and museums. Write: Mr. Max L. O'Starr - 962 Surirro Street - Hayward, California.

SHIP MODEL REGISTRY: This other service is being revived by Edward F. Schortman. He is compiling a catalog of all ship models built by members, so please forward to him descriptions of your models, and stating whether they are for sale. Dr. Schortman is broadening the scope of the Ship Model Registry to include data that will be useful to others, whether they are modellers or not. If you have done any research, for example, mention it too so that your new material will be accessible to others. More details can be had by writing: Dr. Edward F. Schortman - 85 Indian Head Road - Riverside, Connecticut.



FRONTIERS OF THE SEA - by Robert C. Cowen. Illustrated with photographs, drawings, and endpaper maps. 307 pp. Garden City, N. Y.: Doubleday & Co. $4.95.

UNDER THE DEEP OCEANS - by T. F. Gaskell. Illustrated with drawings. 240 pp. New York: W. W. Norton & Co. $3.95.

With the exception of Antarctica and a few other scattered areas, the land surfaces of the earth have been quite thoroughly explored, mapped, and studied. This took many centuries, and while it was going on, the oceans were regarded as either obstacles in the way of travel or pathways to facilitate it, depending on whether one was a landsman or a seaman. Until recently, exploration of the ocean was confined to its surface and a few feet beneath. Even today our knowledge of the depths of the ocean is very limited: we know more about the surface of the moon than about the bottom of the ocean.

The first systematic study of the ocean's surface - its winds, currents, temperatures - was made by Matthew Fontaine Maury only a little over a hundred years ago. The earliest major effort to explore the depths of the ocean was the British CHALLENGER expedition of 1872-76. Since then there have been many similar expeditions, few on such a large scale, but all together adding greatly to our knowledge of the ocean. Yet so vast is the area to be explored and so great are the difficulties of getting to it that the science of oceanography is still in its infancy, and the ocean remains the least-known part of the earth.

These two books both give, in layman's language, an account of the present status of the exploration of the ocean. "Frontiers of the Sea" covers almost every aspect of the subject. It has chapters on theories as to the origin of the oceans, the topography and geology of the bottom, the formation of reefs and islands, waves, tides, currents, the thermodynamics of the ocean, plant and animal life, the oceans as a source of food, and modern techniques of ocean exploration. This is a lot of material to cover in one volume, but it is very well done. Reading the book will not make you an expect on oceanography, but it will give you a comprehensive view of what is known about the ocean, and also of how much is still unknown. The photographs, drawings, and maps are well chosen and add much to the value of the book. There is a satisfactory index and a rather scanty bibliography.

"Under the Deep Oceans" is concerned principally with the bottom of the ocean. However, it also includes some information on related subjects. But the material is not well organized. In almost every chapter there is an interpolation of a few pages about the author's experiences during an expedition in 1949 of which he was chief scientist. These were probably added to increase the popular appeal of the book, but their main effect is to interrupt the treatment of the principal subject. Even when he sticks to the ocean, the author has a tendency to wander from one subject to another. The greatest value of the book is in the explanation of the seismic method of exploring the ocean bottom and the description of the results that have been obtained from it. There is an index and some helpful drawings, but no bibliography.

-Frank W. Thober

AMERIKA SAMOA: A History of American Samoa and Its U. S. Naval Administration - by Captain J. A. C. Gray. Illustrated. xx + 295 pp. Annapolis: U. S. Naval Institute. $6.00.

Among the unfortunate results of World War II was the destruction of the American male's dream of an escape to a South Sea paradise. Captain Gray, the last Senior Medical Officer on Samoa, does little to revive enthusiasm for a life of ease in a little grass shack. What he does do is supply a fact-filled, systematic record of these Pacific islands, from the time they were first sighted by Europeans in 1722 until control of them passed to the U. S. Interior Department in 1951.

After an opening chapter devoted to 18th century explorers who encountered Samoa, the author pushes steadily on, describing the geography of the islands and explaining their social organization. This baffled the European seamen, used to a rigid government directed by one supreme king. With the background disposed of, Captain Gray describes in turn just about every event a reader could expect to find in a single book.

Everything is grist for the doctor's mill: a clash with the natives; the notorious fights among the missionaries over who was to save the natives' souls; the pedestrian efforts of American and European governments to rule the territory; the hurricane of 1889 that resolved for these powers some questions they were unable to negotiate; and the treatment of the insidious disease, filariasis. The doctor is not the kind of man to become over-excited by such events. Having carefully recorded each, he proceeds on to the next order of business. "Amerika Samoa" is a precise, one volume record of what took place on a Pacific island after the white man's arrival.

GORDON GRANT SKETCHBOOK - Drawings by Gordon Grant. Unpaged (80 pp.) New York: Watson-Guptill Publications, Inc. $4.50.

To begin with a cliche, no reader of the Journal has to be introduced to the work of Gordon Grant. Although he has worked in many mediums, he is best known for his pen-and-ink drawings of marine subjects. He and the late Henry B. Culver, the noted authority on sail who was associated for years with the Rogers collection of ship models, produced "The Book of Old Ships" and "Forty Famous Ships". Marine art has seldom produced a happier union. In the present "Sketchbook", the publishers have brought together over 200 heretofore unpublished drawings from Mr. Grant's sketchbooks. These are the quick, hurried studies made with hasty lines for study afterwards in the studio. While practically all of the sketches are devoted to ships or the sea, many of them are simply impressions never intended for publication, but set down for the artist to build on after reflection. This is not a collection of drawings in the sense of "The Book of Old Ships" or Mr. Grant's "Sail Ho!", but a book for the student of the artist's pen-and-ink technique.

THE LONG VOYAGE - by Adrian Hayter. Illustrated. 319 pp. New York: Harper and Brothers. $5.00

This book has been reviewed so thoroughly in the popular press that it is doubtful whether many readers have not already been encouraged to seek it out. Those who have not gotten around to doing so are hereby assured that it is well worth the enthusiasm bestowed on it.

In August, 1950, Hayter sailed alone from England in the thirty-two foot yawl SHEILA II. He was off on the first leg of a six-year voyage to his home in New Zealand. Inexperienced in small-boat handling - he had not completed his correspond-

ence course in celestial navigation, for example! - he had reached the limits of his endurance before arriving at Gibraltar. The rest of the voyage (through the Mediterranean, across the Red Sea, through the Indonesian Islands, down to Australia, and then across the Tasman Sea to New Zealand, at last) was a repetition of this, with the author reaching each new port exhausted and near starvation. Books on single-handed voyages are no novelty nowadays, but Hayter's narrative is certain to attract a large number of readers who are longing for more than endless abstracts of taking in sails during howling gales. Many will be as intrigued by his accounts of life ashore in foreign cities, where he worked at a variety of tasks to provide money for the next leg. This reader's only criticism is directed at his publisher for not including more of the photos taken by the author.

UNITED STATES FRIGATE CONSTITUTION: A Brief Account of Her History with Data for Model Builders - Reprinted by Model Shipways. Bogota, New Jersey. Booklet only (20 pages) $1.00; Plans only (7 sheets) $3.00; Booklet and Plans $3.50.

Because of the great public interest generated by the restoration of this famous old vessel, the Navy Department published a booklet and a set of plans of her in 1932. These, after being out of print for some years, have now been reprinted by Model Shipways by photo-offset. The booklet, slightly smaller than the original edition, includes five photos, tables of offsets, and mast and spar sizes. The plans of the hull and the rigging plans have been reproduced on a uniform scale (1/8" = 1'), with detailed plans of anchor, guns, and carriages on much larger scales. Although these plans cannot be described as "complete" (since the Navy Department failed to include, for some strange reason, a drawing of the transom in the original edition,) they do show many features difficult to obtain elsewhere. Anyone who wishes to model the CONSTITUTION will find much useful data here.

WHALE SHIPS AND WHALING - by Albert Cook Church. Illustrated. 179 pp. New York: W. W. Norton and Co. $8.50.

Here is another classic which has been reprinted by photo-offset. There is no need to introduce it to older readers who have concentrated on whaling, but we would like to call it to the attention of those who are only beginning to take interest in the whale fishery. "Whale Ships and Whaling", first published in 1938, has a brief text, but its real merit is in its photos; there are more than 200 of these. While the majority are the customary pictures of ships under sail, as seen from a nearby vessel, others are more unique and provide useful information on bows and sterns, in addition to views around the deck. It is regrettable that the publishers did not use more care in reproducing the pictures, because they have lost much of their clarity and sharpness.

DICTIONARY OF AMERICAN NAVAL FIGHTING SHIPS - Volume 1, A - B. Office of the Chief of Naval Operations, Naval History Division, Washington. xvii + 349 pp. Illustrated. (For sale by: Superintendent of Documents, U. S. Government Printing Office, Washington 25, D. C. $3.00.)

To review this book it is only necessary to quote several passages from the preface: "The 'Dictionary of American Naval Fighting Ships', the first of a multi-volume series, has been compiled to fill a long-felt need within and outside the Navy to have in readily accessible form the basic information on every naval ship, each of which in large or small part has helped to shape the destiny of the United States at sea.... The history of each ship includes, where known, her tonnage or displacement, length, beam, draft, speed, complement, armament, and class.... In

addition each history presents, where known, the builder, sponsor, launching and commissioning dates, date of acquisition by the Navy, first commanding officer, a concise operational history, and disposition.... Volumes have been and will be written of the careers and achievements of many of the ships that have greatly served the United States. The purpose of this 'Dictionary', however, is to give the concise facts about every ship so that it may be a ready reference for those who have served in the ships and for the student, writer, and many others who seek a work like this."

To this I will merely add that the "Dictionary" succeeds in all its purposes and is certainly to be ranked as one of the most useful books on the Navy printed in recent years.

-Ernest M. Pittaro

THE BUILT-UP SHIP MODEL - by Charles G. Davis. Illustrated with Photographs, Drawings, and Plans. viii + 206 pp. Reprinted by Caravan Book Service, Jamaica 32, New York. $13.50.

Of all the writers who have attempted to recreate the sailing ship in words and pictures, not one has attracted a more enthusiastic audience than the late Charles G. Davis. Davis wrote many magazine articles and books for several publishers, but students and model makers associate him mainly with those he wrote for the Marine Research Society. In 1933, the Society published his "Built-Up Ship Model", which immediately became the standard work on this subject and remains so today. Model builders who have been seeking copies in the out-of-print shops will be glad to learn that it has been made available again. This edition, reproduced by photo-offset, is a well-made book with all of the original material. Actually, one might say it is identical except for three of the double-page plates at the front of the book, which have been reduced to go on single pages.

In explaining plank and frame construction, Davis chose the brig LEXINGTON, of Revolutionary War fame, as a model that would not be too involved for the amateur. Later research has shown that he made some serious errors in reconstructing the LEXINGTON. This detracts very little from the value of the book, for nowhere else can the amateur learn so easily and so well how real ships were put together, and how these methods can be adapted to model making. And, of course, there are the incidental bits of lore that Davis dropped into all of his books, which fascinate us while restoring the scenes of wooden shipbuilding. It is a real pleasure to find "The Built-Up Ship Model" back in print.

THE DISCOVERY OF THE WORLD - by Albert Bettex. Profusely illustrated. 379 pp. New York: Simon and Schuster. $17.50 until December 24th; $22.50 afterwards.

"The Discovery of the World" can be described in a word: Magnificent. Overflowing with an abundance of remarkable illustrations, all printed with the greatest of care, skillfully arranged with unobtrusive typography, it is a handsome example of craftsmanship - and a perfect Christmas gift.

When early man returned to his friends with tales of adventure in distant lands, an artist listened eagerly at the fireside and hastened to preserve the story in picture form. And now in the 20th century, while man continues to explore his world, he no longer relies on an artist to chronicle his travels. Every explorer has a battery of cameras and brings back his own pictures, unassailable evidence for his claims. Color photography and high speed printing presses have all but displaced the engraver's plate and the lithographer's stone.

But if the artist's role in modern expeditions have been removed by technological developments, he has, nevertheless, bequeathed us priceless accounts of history.

They extend 3,500 years into the past, back to the time of the Egyptian queen who fitted out ships to establish trade relations with the land of Punt. Albert Bettex has brought together 305 illustrations extending from that time to Robert Scott's heartbreaking last days. They are the work of dedicated men, endeavoring to portray for all the wonders seen by a few. These men, who were soon forgotten, used practically every medium: wood cuts, wood engravings, engravings and etchings on copper, pencil drawings, water-colors and oils, lithographs - everything except photography. Mr. Bettex has arranged these with 75,000 words of text, a narrative of how "man set out to discover and explore the earth." The text, while needing no apology, is not intended as a history of exploration. As the author acknowledges, "this is, broadly speaking, a collection of pictures illustrating the achievements of white men and, for the most part, those of Europeans."

Today, when our national magazines are filled with full-color pictures, it may be hard to appreciate the conditions under which the contemporary artist worked. In the large expeditions of the 18th and 19th centuries he might be a regular member of the party, toiling over the ice or hacking a way through the jungle with the rest. Often, though, he based his compositions on notes and sketches brought back by an officer. Sometimes he was furnished pressed plants and the skins of animals. Of course in medieval times he was untroubled by the absence of such information. To the already wondrous tales of that age, he added his own imagination. We can smile indulgently at his picturesque interpretations of Alexander the Great at the world's end, tears in his eyes while an oracular tree informs him that Death is near. Later, though, other artists would delineate the intricate carvings on the Aztec pyramids with amazing accuracy. And they often succeeded in conveying in their plates a clarity and vitality wanting in today's true-to-life camera shots.

Here, now, is a discerning selection of their illustrations. Assembled in one oversize volume (9 3/4 in. by 12 1/4 in.), they are striking examples of the contemporary artist faced with unique problems. Many drawings stretch across two pages, with a large number in brilliant color. "The Discovery of the World" is a generous tribute to the men who portrayed the drama of exploration.

-Roy Rogers

SAILING AROUND CAPE HORN (UNTER SEGELN RUND KAP HOORN) - Drawings by Gunther T.Schulz. 225 pp. Distributed by Karl F. Wede, Inc. Saugerties, N. Y. $12.00.

Taking as his subject one of the big nitrate barks on a voyage from Hamburg to South America and then around the Horn to Chile, the artist has presented a graphic history of life at sea at the end of an era. In full-page drawings, executed with a sureness that only a master of pen-and-ink technique can command,Mr. Schulz carries us aboard one of Laeisz's Flying P square-riggers. (See the drawing on the cover of this issue of the Journal.) Each of the 112 illustrations has a caption in English, German, and Danish. Here is the new crew lugging their gear to the forecastle, aided by the curses of the bosun. On the following pages we watch the ship being readied for sea while being towed down the Elbe. Then, bound for Cape Horn, the artist records the everyday activity of overhauling the rigging, mustering the watch, even the "doctor" attempting to flip pancakes in the rolling ship. But it is useless to enumerate here every scene before the nitrate is loaded and the ship is ready for the homeward voyage around Cape Horn.

Let me say that Mr. Schulz brings a reality to the printed page that the camera has never succeeded in capturing. The accuracy of his work will be appreciated by model builders. In addition to the numerous details to be seen in the plates, there are six diagrams illustrating the lead of rigging. "Sailing Around Cape Horn" is undoubtedly the finest collection of pen-and-ink drawings of a square-rigger it has been my good fortune to see.

-Roy Rogers

NEPTUNE'S WOODEN ANGELS-BEAUTIFUL OLD FIGUREHEADS (NEPTUNS HOLZERNE ENGEL) - by Herman Ahrens (Illustrator) and Wolfgang Bittmeister. 60 plates; text in German. Distributed by Karl F. Wede, Inc. Saugerties, New York $8.50.

This is a rather unusual work, very much on the artistic side with a minimum of text. There are over 60 different figureheads presented in full-page plates; six of them are in color, and the remainder are printed in monotone. These are not photos, but sharp accurate drawings made from models and full size carvings. Anyone interested in this subject will find the work well presented and worthy of space on the reference shelf. Subjects include typical figureheads from French, English, Dutch, German, and some American vessels.

-James W. Harbin, Jr.

ROPE ROUNDUP: The Lore and Craft of Rope and Roping - by Bill Severn. Illustrated by Yukio Tashiro. xvi + 237 pp. New York: David McKay Co. Inc. $3.95.

Here is a book for the youngster who is beginning to show an interest in ship models - especially if he has been bombarding Dad with some rapid fire questions about the kind of "string" he uses on models. It will introduce him to the subject of ropemaking and show him how to make the most useful knots and hitches. Although about half of the book is taken up with cowboy lariats and tricks for amateur magicians, the other half provides a lively history of cordage through the ages and a surprising amount of practical directions for the choosing and care of rope. The young reader who is stimulated into looking further will find a very adequate bibliography. The illustrations are good, too.

HOW I MAKE GRATINGS

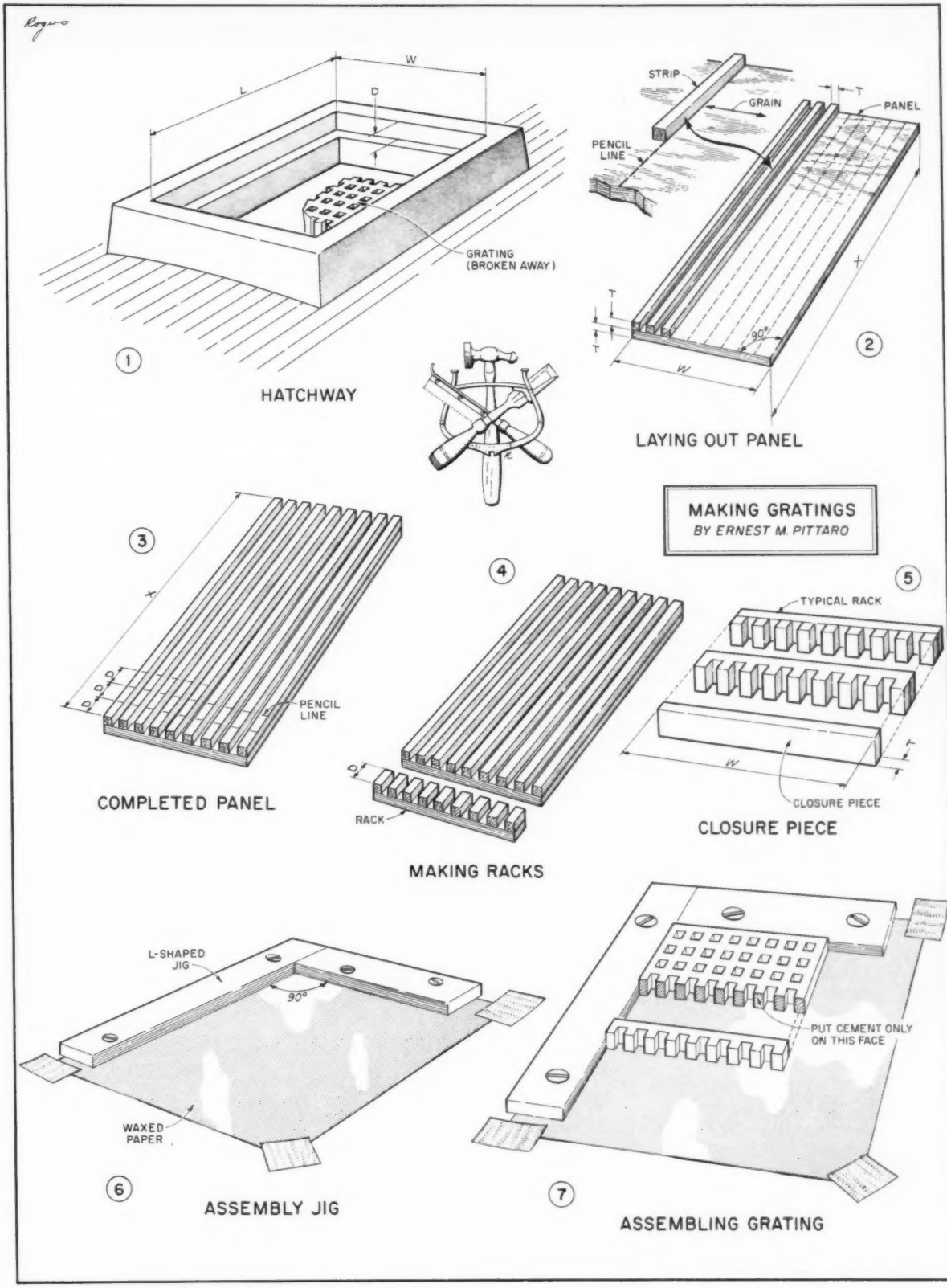
BY ERNEST M. PITTARO

When I had to make a grating for a hatchway recently I tried several methods. The difficulties of cutting half-lap joints caused me to abandon that practice. After several attempts I came up with the following system.

1/32nd" x 1/32nd" strips were used since they were on hand. A 1/32nd" thick panel was sawn out, with the grain running the short way to prevent weak crossgrain in the finished grating. The width (W) of the panel can be scaled from the plans, but the overall length (X) will have to be estimated. The strips were cemented to the panel, following pencil guide lines that had been carefully drawn to insure straight, uniform rows with exactly 1/32nd" clear space between strips. (See Fig. 2). The panel will look like Fig. 3 when this strip is completed.

Cross-lines were drawn for cutting off pieces I call "racks", taking the spacing (D) from the depth of the hatch recess. (See Fig. 3 and 4). If you do not have a small circular saw with especially fine teeth, use a modeller's thin back saw and miter box. The racks are turned on edge, as shown in Fig. 5, for final assembly. This view also shows the "closure piece". A real grating has a solid strip all around, like a frame, so the closure piece has to be added to one end.

To keep the racks in alignment while being assembled, I made an L-shaped jig from thin wood. (See Fig. 6). Waxed paper was taped down to prevent the racks from sticking to the workbench. Although the drawing shows a jig only slightly bigger than the completed grating, I found it would have been better to make it larger so that a machinist's thin metal square could be slid along the arms to check the accuracy of the assembly. The racks were then cemented together in the jig, one by one, until they made up the required length (L) of the hatchway opening - allowing for the 1/32nd" thick closure piece, of course. After allowing the cement to dry, the grating was removed and sanded to the desired thickness.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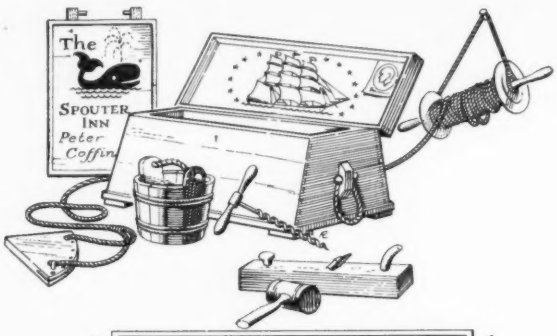


NOTES AND COMMENTS

SOME NOTES ON RIGGING

LEECHLINES ON SINGLE TOPSAILS: A plate in a recent book shows the standing part of the topsail leechline bent to the leech immediately below the second reef band. Inasmuch as at sea single topsails were almost always close-reefed before being furled, by the time occasion had arisen to use such a leechline it would have been buried in the reefs and would have been useless. Actually the leechline was bent to one of the bowline cringles - generally the lower one - and consequently was always below the close-reef.

As a matter of fact, in the 18th century topsails generally had leechlines; in the 19th they generally did not. The reason was that in the first period the close-reef was much nearer the head of the sail than in the second, and the clewline blocks were at a point well out from the slings, while in the 19th century the quarter block was generally the clewline block. The result was that in the 18th century, clewing up the close-reefed sail would not bring the leech in taut along the yard, and leechlines were required to so bring it in; in the 19th century, clewing up the sail did bring the leech taut in, and leechlines accordingly were superfluous.

Nevertheless, in the 19th century in preparing for bad weather, topsail leechline spilling lines were often improvised by unreeving the topgallant sheet (the topgallant yards having been sent down) from the yardarm sheave, bringing it down abaft the sail, reeving it forward through the lower bowline cringle, and bringing it up before the sail and making it fast to the yard near the quarter block; or else (and better) bringing the topmast studdingsail halyard jewel block in from the pacific iron, making it fast to the topsail yard where judged most suitable, bringing the end of the halyard down before the topsail, aft through the lower bowline cringle, up abaft the sail, and making it fast to the yard abreast the jewel block. Such spilling lines not only brought the leech in but trussed up the sail as a whole.

CLEWROPES AND CLEWJIGGERS: Soon after 1815, a new method of furling courses and topsails in harbor and in moderate weather - indispensible conditions for its use - became employed in men-of-war. After the sails had been hauled up in the ordinary way, clewropes (if they were whips) or clewjiggers (if they were tackles) were overhauled down before the yards and hooked to the clews. The clews were then hauled up (by the men on deck) as far above the yard as possible and at the same time the foot was also hauled up by the inner buntlines, all the other gear being veered away to render this possible. Thus the men furling had very little weight of canvas to rouse up; as fast as they folded up the sail the clewropes and inner buntlines were veered away while the slack of the other gear was gathered in, and the furling thus became "smarter".

Brady, "The Kedge Anchor", in his block and rigging tables gives blocks and ropes for the clewropes and jiggers, and it is possible that sometimes special material was consecrated to their use. But according to what old men-of-war's men told me, other gear was always made to do duty for them. Thus the outer buntlines (shifted from the foot of the sail to the clew) or the topmast studdingsail halyards (unrove from the jewel block and bent to the clew) were used for clewropes on the topsails, and the topburtons or lower inner studdingsail halyards (if led to the lower cap) for the clewjiggers of the courses.

To render the tricing up of the foot of the topsails possible, the inner buntline blocks, which previously had been permanently stopped to the strop of the tie block, were fitted with lizards; that is, the buntline blocks or thimbles were each spliced in the end of a short piece of rope, the other end of which was, under ordinary circumstances, hitched around the neck of the tie block strop. But when the topsail was about to be furled in this way, the lizards were cast off from the strop and the ends knotted together abaft the ties, so that when the buntlines were manned the lizards could slide up nearly to the crosstrees and the foot of the sail with them. In some ships, in order to make this unnecessary, after splicing the block or thimble in one end of the lizard, a number of trucks were threaded on it, and the other block was spliced in the other end. The part with the trucks having been passed around the topmast, the two parts were seized together before the mast. Such a lizard, of course, would automatically slide up when the buntlines were manned.

-D. L. Dennis

LEAD OF FOOTROPES:

Perhaps the most common error that modelers make is in the lead of footropes on the royal and skysail yards. Instead of being entirely below the yard, the inner end of the footropes should be carried abaft the mast before being secured to the jackstay. (There is some evidence that, in very small vessels, the topgallant yard footropes were also rigged this way.) This is necessary because when sailors lean over a yard in furling a sail, their feet naturally swing back, and this backward motion would be impossible if the footropes were confined by the mast.

The foregoing remarks apply to most of the later square-riggers except those that had cranse irons instead of wood saddles on the royal and skysail yards. When cranse irons were fitted, the yard was usually projected far enough beyond the mast to provide sufficient space for the footropes to hang naturally under the yard (as on a lower yard) and still allow leg room.

-Andrew J. Nesdall

(Note: Mr. Nesdall brings up a point that has received little attention. One of the few books that mention it is "Nautical Routine" (1840) by Murphy and Jeffers. In describing the rigging of a topsail yard, it states that the footropes are "taken abaft the mast (when the yard is crossed)..." However, this same book, when dealing with footropes on topgallant and royal yards, states that they are rove similar to those on topsail yards, except that "the inner ends, however, do not cross abaft the mast after the yard is sent up, but seized to the quarters.")

(Footropes were used on the New MAYFLOWER for the convenience of the modern sailors, although some authorities do not believe they were used as early at 1620. The old style parrel, as used on this vessel, holds the yard snugly against the mast. I asked Mr. Baker, her designer, if this interfered with the lead of the footropes. His reply follows on the next page. - Ed.)

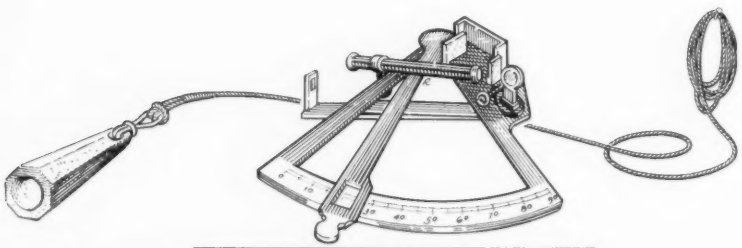
I do not recall any reference to the footropes being carried around abaft the mast.... It seems to me that footropes carried around abaft the mast would be very liable to get jammed in a parrel. On the New MAYFLOWER, which we knew should not have had footropes from the historical point of view, the inboard ends of the footropes crossed at the centerline and secured to the yard.

-William A Baker.

U. S. COAST GUARD CUTTER MANHATTAN:

Perhaps Charles S. Fox, who contributed the excellent set of plans of the MANHATTAN (Nautical Research Journal, Vol. 10, p. 135, and Vol. 11, p 28) will be interested in the following. When I was searching through "Shipping Wonders of the World" recently for something else, I ran across a picture of the MANHATTAN. The photo is a poor one, having been made on a dark winter day; ice can be seen in the water. From what I can determine, Mr. Fox's drawings agree with the photo except for two things. (1) In the picture a stay is seen, leading from the top of the after mast to the middle of the cabin trunk. (2) I was not able to find the ladder he shows going from the deck to the top of the trunk, near the after mast. Since the photo is not clear, as I said, I do not want to be emphatic about the second point.

-Ernest M. Pittaro.



QUESTIONS AND ANSWERS

The purpose of this section is to provide a means of obtaining and exchanging information which is not generally accessible. Correspondents who send their answers directly to the inquirer are urged to send copies to the Journal, so that the information can be made available to others.

QUESTIONS:

(11-3-1) SIDEWHEELER MARY POWELL (1860): I want to make a model of the beam engine of the MARY POWELL, but while I have written to quite a few people in the United States and England, I have not had any luck in locating sufficient information. My grandfather helped build the POWELL's engine, and I served my time in the same shop- I am a marine engineer - so perhaps others can understand my interest. Any help anyone can give me on this problem will be appreciated very much.

-William DuBois

(11-3-2) INFORMATION WANTED ON MODEL MAKERS: The Addison Gallery of American Art is preparing a handbook describing its ship model collection, and would like to include brief biographical sketches of the men who constructed the models. These

men are: R. C. Anderson, H. Percy Ashley, A. H. Baay, Alfred S. Brownell, H. E. Boucher, Edgar B. Hammond, Bernard Hart, Walter C. Leavitt, C. A. Pritchard, Walter A. Simonds, and Frederic W. Snow.

Any information about these model makers will be greatly appreciated. Please address your letters to the Editor.

(11-3-3) MAN-OF-WAR RANGER OF 18 GUNS: I am looking for evidence which will substantiate my theory that the Revolutionary War ship RANGER was the same vessel outfitted at Charlestown by James Rogers in 1761 and called the MAJOR ROGERS. I have been informed that it is possible she was one of the French sloops taken by Rogers Rangers at St. Jean during the campaign of 1759. If she was French, I should like to know where I can consult (a) Lines and sail plans of her class; (b) Specifications in the journal of Elijah Hall (who supervised her repairs and outfitting), as quoted by Augustus C. Buel in his "Paul Jones".

-Kendall Rogers

(11-3-4) GUN PORT LIDS: Charles G. Davis, in his "Built-Up Ship Model", speaks of gun ports being closed by half-ports hinged at the bottom with the upper half, called a "buckler", being fitted by hand. I do not understand this completely. Can someone describe this better or tell me where I can find a detailed drawing?

-I. I. New

(11-3-5) AMERICAN SCHOONER FITTING: A man who sailed on American coasting schooners mentioned some sort of leather "washer" that, I gather, was an essential fitting on the end of the topsail sheet underneath the gaff jaws. Can some reader describe this washer and explain its use?

-Ernest M. Pittaro

ANSWERS:

(11-1-5) ORIGIN OF THE SCHOONER IN AMERICA: An engraving by S. Savery of the first half of the 17th century shows what Mr. Ferguson perhaps calls a schooner. It is a speel-jacht ("play-yacht"), therefore a pleasure boat of a rich Amsterdam merchant. These "schooner-rigged" vessels were definitely not used for exploring work, etc.; they were not used for work at all. The only types the Dutch used in the 17th century for the sort of work (in the Navy and the East and the West Indies companies) were the little ship-rigged pinnaces and the one-masted galliots. I especially examined the paintings of the fleets by the Van de Veldes, but did not see these "schooners".

- Hans Van Roo

(11-2-3) RUNNING LIGHTS: I do not think any navigational lights were carried previous to the international adoption of the present system in about 1860. Robert Leslie (in his book "Old Sea Wings") says that in 1840 there were none, and mentions that the master of a Yankee New York-London packet at that date, for his own satisfaction, carried a white light on his bowsprit cap, "Which when fellows saw, they mostly 'bout ship, taking it for (a) lighthouse ashore." Howard, in his novel "Ratlin the Reefer" (Napoleonic period), mentions the case of a convoy frigate that had a light hung over the bow when wearing - evidently so that any of the convoy whom she might be bearing down on might get out of her way. (One failed to profit by the opportunity.)

Poop lights were not navigational lights in the sense that they were constantly lighted that all who ran might read. They were only lit for a definite purpose. In the campaign of 1778, two of d'Orvilliers ships parted company without reason that he considered sufficient, and he complained that they failed to rejoin "although I caused the lights to be lit and kept them burning all night." Similar evidence as to their exceptional use abounds in the reports of the War of American Independence. The French tables of allowances of 1786 accorded a 116-gun ship but 120 wax candles for a six months outfit, and these served for the signal lanterns as well as the poop and top lights. It is true that they were of rather Brobdingnagian proportions.

-D. L. Dennis

(Note: Mr. Dennis's last remark, on the large size of the wax candles, reminds me that the lanterns carried by 17th century ships did not have such huge proportions merely to embellish the ships, but were necessarily large to dissipate the heat. The same candles burning in smaller lanterns would have soon melted in their own heat. - Ed.)

(11-2-4) "LA SCIENCE DES GALERES": It may be noted that No. 53 of "Triton", 1959, contains an article on Barras de Lapenne which indicates that his manuscript "La Science des Galeres" is now in the Musee de la Marine in Paris. It appears from the article that the book was never printed, for reasons which the article makes clear. The contents of the manuscript are described as consisting of "rather boring" and interminable dissertations.

It is generally acknowledged that the European galleys represent one of the most shameful aspects of nautical history - about on a par with the German concentration camps. However, because of the prominent part played by the galleys in their naval history, the French marine museums pay a great deal of attention to this field. Anyone interested in galleys would do well, therefore, to join "Les Amis des Musees de la Marine", Palais de Chaillot, Paris 16, France. "Triton" is one of their periodicals.

-Herbert Goldstein

Barras de Lapenne's manuscripts (or at least some of them) are in La Bibliotheque du Service Hydrographique de la Marine at Paris. I do not believe that they have ever been printed. Only a few of the drawings are reproduced in "Souvenirs de Marine".

Rather long excerpts from his works (and some of his drawings) are reproduced in L. Guilleux La Roerie, "Navires et Marins". Jurien de la Graviere, "Derniers Jours de la Marine a Rames", gives a long description of the construction and rig of galleys (about 1660-1748), and this is based on the manuscripts of Barras or on other similar ones, of which a number exist (often in Provencale).

-D. L. Dennis

(11-2-5) FRENCH MUSEUMS: Two museums having galley information are: at Marseilles-Musee Maritime et Colonial Palais de la Bourse; at Toulon - Musee Municipal.

-Howard I. Chapelle

(11-2-6) CAP SHORES: (The following was not submitted as an answer to Mr. Tucker's question, but was written while the last number was in the press. - Ed.) This was a shore placed immediately before the heel of the topmast, its upper end tenoning into a mortise on the bottom of the cap and the lower end into one in the chock or the crosstrees immediately before the topmast. Although not often mentioned, I

suspect they must always have been used with wooden caps, as otherwise such ropes as the lifts, the standing part of the top ropes, etc., would have produced very great stresses in the cap. I do not think they were usually elaborately turned.

-D. L. Dennis

(11-2-7) BOAT BOOMS: Luce, in his "Seamanship", says that in "some" ships the boats were manned from the boat boom, but that when "dropped to gangway" they would be manned more quickly, and the danger of men falling into the water while trying to enter a boat from the boom would be avoided. When boats were riding to the boom they had another painter (sometimes called an "inhaul") leading to some point in the ship's side forward of the gangway, so that when the painter leading to the boom was veered or cast off they would (if the ship was riding head to wind or tide) automatically swing over to the ship's side. This practice was termed "dropping to gangway".

To man a boat from the boom, the crew had either to crawl through ports obstructed by guns or else climb up a Jacob's ladder and get through the rigging and then lower themselves from the sheerpole in order to get on a channel; then climb down a Jacob's ladder to the boom; then walk out sideways on the boom, holding on to a lifeline; and then (unless there was yet another painter leading to the spritsail yardarm) they must have had to try to reach a boat by sliding down a slanting painter - for it would have been impossible to bring a boat under the boom if there were any wind or tide. After all this the boat would still have to be dropped to gangway to receive an officer. The gangway or entry port was made for an exit. There were side battens and manropes, if not an accommodation ladder. It is evident that a boat could be manned at the gangway in a fraction of the time and with a fraction of trouble required to man her from a boom. I suspect, therefore, that the "some" ships of Luce were about as plentiful as hen's teeth.

At least in the French Navy and in the 19th century, the studdingsail boom was very commonly shipped on the middle wale in three-deckers - the leeches of the lower studdingsail being longer than those of the foresail. I believe that in the U.S. Navy the boom (for carrying studdingsails) was always shipped on the channel, but sometimes in large ships it was moved down to act as a boat boom. However, Brady, "The Kedge Anchor", says that this was done to give the boat painters a more horizontal lead. No matter where the boom was placed the vertical outboard distance traversed to reach a boat by way of it remained constant as the boom was reached by a Jacob's ladder from the channels.

The boom would have been a great obstruction if it had been placed so boats could not readily pass under it.

-D. L. Dennis

(11-2-8) SCHOONERS VEGA, HUSSAR, AND ANGELITA: Following is some design data on these vessels.

	VEGA x ETAK	VEMA x HUSSAR	ANGELITA x SEA CLOUD x HUSSAR
Designer	Cox & Stevens	Cox & Stevens	Cox & Stevens
Builder	F. Krupp Germania Wt.	Burmeister & Wain	F. Krupp Germania Wt.
Date	1930	1923	1931
Owners	William G. Ladd Adolph M. Dick	Marjorie Post Davies G. Unger Vetelsen U.S. Marine Academy	Marjorie Post Davies Truxillo
Gross Tons	242	533	2323
Net Tons	113	118.7	1187

	VEGA	VEMA	ANGELITA
LOA	134.1	203.5	316.0
Reg. L.	118.7	174.2	281.6
LWL	100.0	164.0	254.0
Beam	28.1	33.1	49.2
Depth	14.6	15.1	24.8
Draft	15.9	14.6	19.1
Engine	Winton 8" x 10" 6 cyl.	B & W 15 3/4 x 18 7/8" 6 cyl.	Krupp 4-15 3/4" x 22 1/16" Coupled to Electric motors, 6 cyl.

Plans of the VEMA will be found in "Rudder" for March, 1924, and in "Shipbuilding and Shipping Record" for sometime in 1924. Plans of the ANGELITA will be found in "British Motorship", probably June, 1932; also in "Shipbuilder and Engine Builder" for June, 1932, and in "Werft-Reddere I-Hafen" for June 1, 1932.

Some information on the design of the VEGA will be found in Clinton Crane's "Yachting Memories", in the chapter about owners.

I have copies of the above listed plans and can have photostats made for interested persons. If I can be of any service, please let me know.

-Ronald R. Moore

THE SCHOONER PRISCILLA L. RAY

(Howard I. Chapelle contributed the drawing of the PRISCILLA L. RAY, from the files of the Smithsonian Institution. To make it more useful to our readers, I asked Frank W. Thober to compile a short history of the schooner. - Ed.)

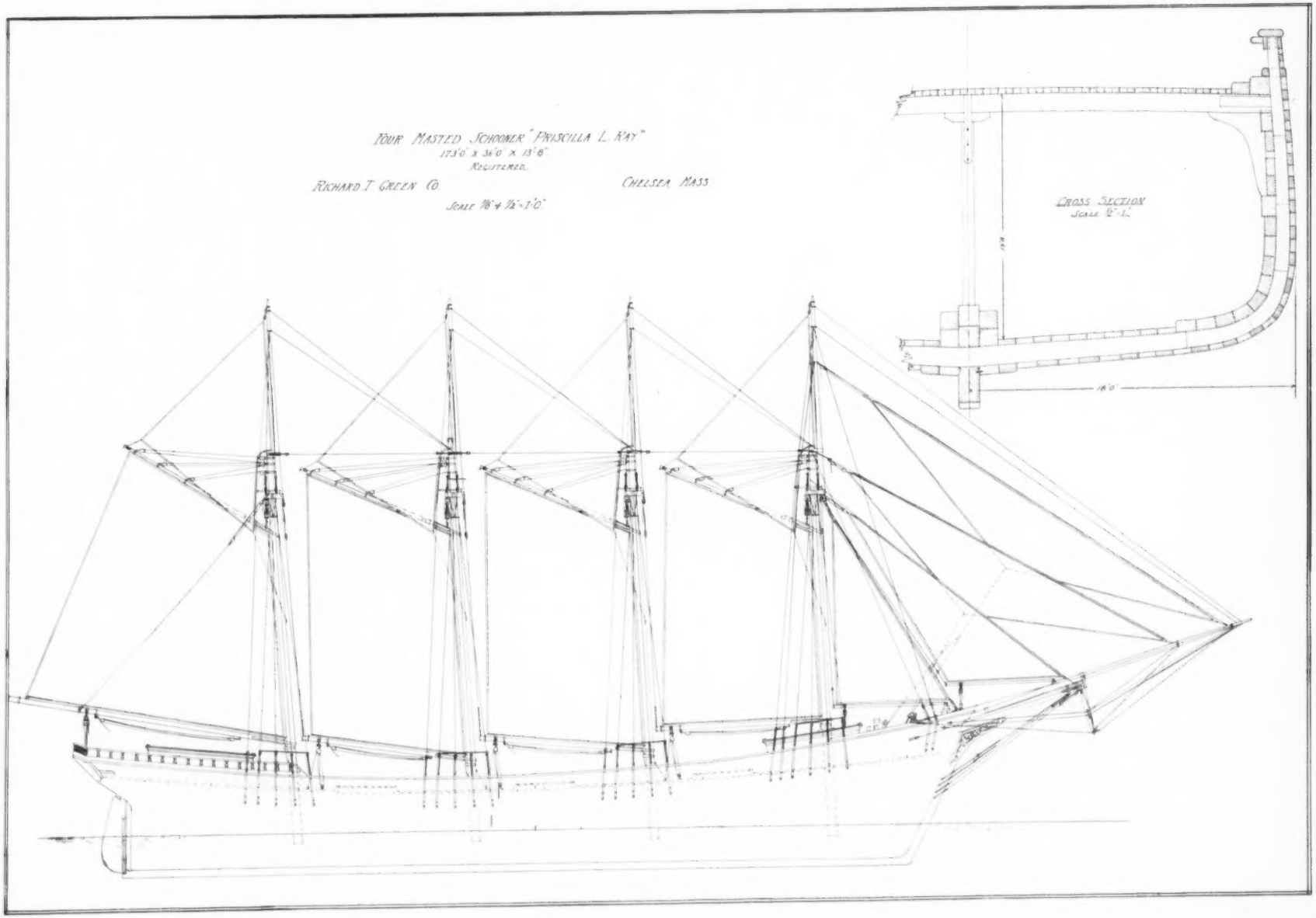
The PRISCILLA L. RAY began life as the HENRY L. PECKHAM. The PECKHAM was a four-masted schooner built in 1891 by John M. Brooke at East Boston. Her registered dimensions were 190' x 37' x 18.3' and her net tonnage 823. Her first owner was Gardiner B. Reynolds; her home port was Newport, R.I.

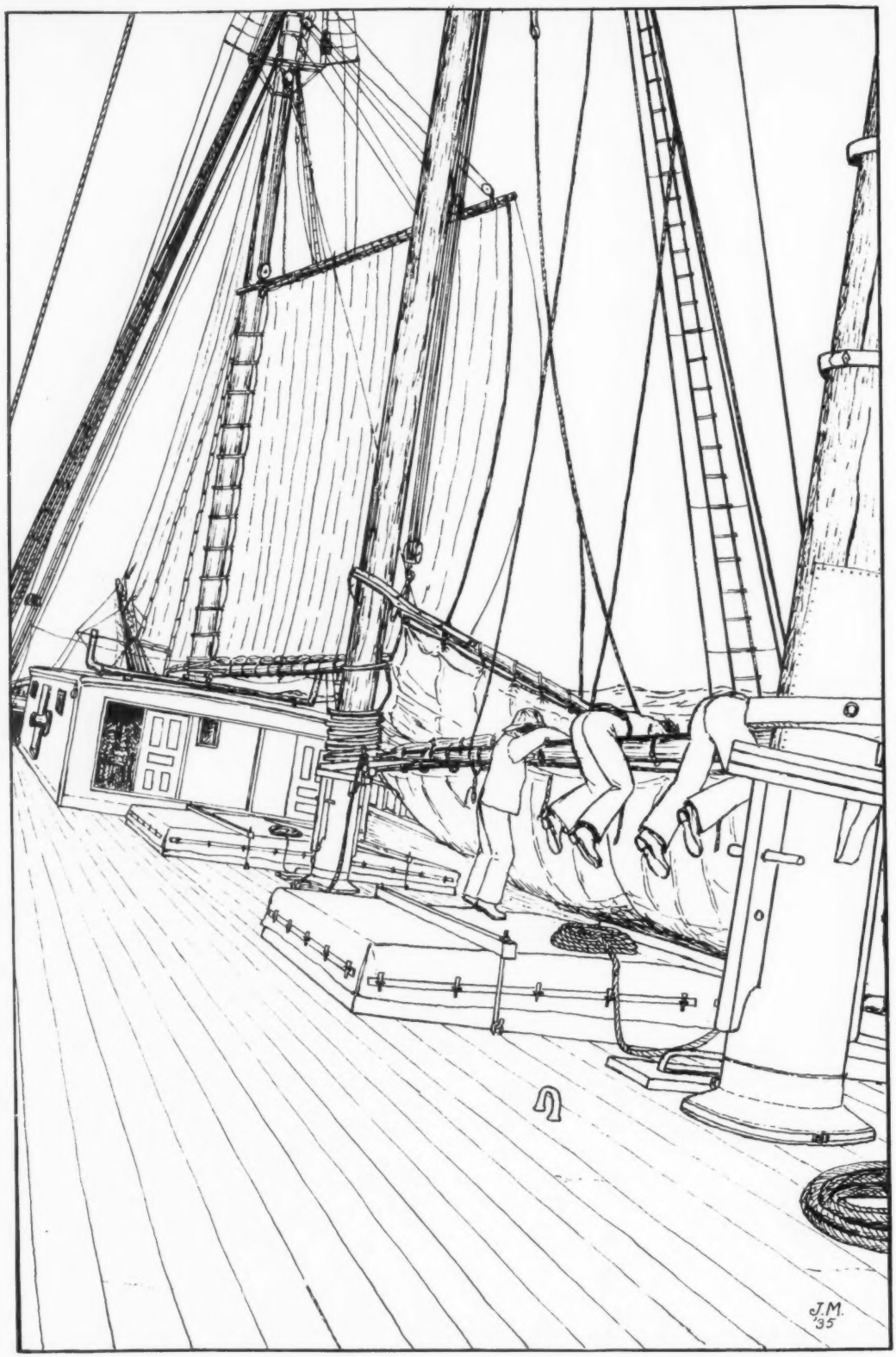
On June 29, 1910, while unloading coal at Richard, Me., she and the schooner YOUNG BROTHERS caught fire from a blaze that had originated in nearby ice houses. The latter was a total loss, but the PECKHAM sank and extinguished the fire before her hull was destroyed. She was raised and towed to Bath on November 18, 1910 to be converted into a barge. Whether this was actually done is questionable, as I can find no record of her after January, 1911, when her name was dropped from the listings in the New York Maritime Register. It seems likely that the PECKHAM was not in active service during the years 1911 through 1915, but I have found no positive evidence to support this conclusion.

By 1916, the demand for any kind of craft that would float was so great that many dismantled, laid-up and abandoned vessels were being repaired and put back into service. The PECKHAM was among these. She was rebuilt by Richard T. Green of Chelsea, Mass., into a seagoing four-masted schooner at a cost of $45,000, probably more than her original cost. She formerly had two decks, but was rebuilt with a single deck and her depth reduced by about four feet. Her new tonnage was 712 gross and 649 net. Renamed the PRISCILLA L. RAY, and now owned by the East Coast Transportation Co. of New York, she sailed from Philadelphia on first voyage under her new name on Sept. 17, 1916

On February 14, 1920, she sailed with a cargo of lumber from Port St. Joe, Fla. for Caibarien, Cuba, and four days later was wrecked in Northwest Passage, near Key West. The drawing shows her as a rebuilt in 1916.

-Frank W. Thober


FOUR MASTED SCHOONER "PRISCILLA L. KAY"
173'0" X 36'0" X 13'6"
REGISTERED.
RICHARD T. GREEN CO.
CHELSEA, MASS.
SCALE 1/8"=1'0"
CROSS SECTION
SCALE 1/8"=1'
18'0"



This drawing shows the PURNELL T. WHITE on a stormy December day somewhere off Cape Hatteras. The flying jib and outer jib have been tied up, the foresail and spanker have been reefed, and the crew is now hard at work reefing the mainsail.

A VOYAGE IN THE PURNELL T. WHITE

LOADING LUMBER IN GEORGETOWN (1933)

BY JAMES S. McCULLOUGH

PART 3

NOVEMBER 8th. A towboat came from Charleston and towed the ALBERT F. PAUL to sea. We were still sewing sail, putting in new cloths or patches and replacing chafed roping on the leeches.

NOVEMBER 9th. Today, Thursday, was the first day this week the longshoremen worked, as the roads were bad, and the trucks could not get the lumber in from the mills. We brought the jib aboard and bent it and took the foresail ashore to repair.

NOVEMBER 10th. The longshoremen worked a few hours today, while we put in a full day sewing sail. We finished the mainsail, so brought it aboard and bent it.

NOVEMBER 11th. We sewed sail for a while in the morning, then came aboard, cleaned up the decks, washed down fore and aft, replenished the cook's firewood, and knocked off for the day at noon.

NOVEMBER 12th. This was a quiet day (Sunday) spent washing clothes and loafing. No one had money.

NOVEMBER 13th. We replaced broken ratlines and battens on the mizzen and the spanker shrouds, and oiled the decks with pine oil. The longshoremen did not work. About dark, a heavy squall from the southwest hit us, and we were called to put extra moorings on the dock. There was heavy rain with the squall, and we were soaked to the skin.

NOVEMBER 14th. While one man sewed on the foresail, two men washed and started painting the inside of bulwarks (white), pin rails (buff color), and waterways (green). This job had to be done before the deck load was put aboard. The longshoremen did not work today.

NOVEMBER 15th. We finished painting the bulwarks and waterways and started repairing ratlines and battens on the fore and main shrouds. In the afternoon we took aboard about half a ton of coal for the cabin stove and cut more wood for the cook.

NOVEMBER 16th. We brought the foresail aboard and bent it, then painted the anchors and bob chains and washed the paint work on the poop deck. The longshoremen finished loading the after hatch, and we battened it down. Half a ton of coal was delivered alongside while we were eating supper, so we had to turn to and take it aboard.

NOVEMBER 17th. The main and fore hatches were finished (loaded) during the morning, and we battened them down after we cut a good supply of firewood on the deck. We brought it aboard and stowed it in the fore hatch coaming. The towing hawser was broken out and coiled down on the forecastle head. Three hundred pounds of ice was delivered alongside in the afternoon, which we took aboard and stowed in the ice chest. The longshoremen finished loading all cargo about 4 P.M. The deck load extended from the after part of the fore hatch to the break of the poop and to the height of the bulwarks. We had aboard 535,000 feet of green hard pine - boards, planks, and square timber. The vessel drew 16 feet 9 inches of water (fresh) aft.

NOVEMBER 18th. We turned to at 8 A.M. to get the vessel ready for sea. Chain deck-load lashings were brought up from the forward lazarette, put in place, and set with turnbuckles. The spanker was loosed, reefed, and tied up again. The skipper did not believe in starting on a voyage north of Hatteras in the winter time with a full spanker. The port hawse and chain pipes were plugged and cemented. The fore, main, mizzen, and spanker sheets were rove off. They had been made up and stowed below for protection for the duration of our stay in port. We built a temporary rail along each side of the deck load. The vessel was now in good shape to go to sea, and we expected the towboat from Charleston in the morning.

NOVEMBER 19th. This day (Sunday) broke clear and warm with a light easterly wind. Captain Porter, the pilot, came aboard about 8:30, and we singled up the mooring lines. An hour later the towboat HINTON came steaming up the river to tow us to sea. We were all glad to get away from the warm days and nights and mosquitoes of Georgetown. We passed the towing hawser to the tug and started to let go the remaining mooring lines when we discovered that Chubby the cat was not on board. The vessel was then five or six feet away from the dock, but Jimmy, the cook, jumped ashore and started calling and searching for Chubby among the lumber piles. Chubby suddenly appeared from under a pile of lumber and headed toward the vessel, but a stray dog that happened to be on the dock saw Chubby and took after her. In the rush and excitement Chubby fell overboard but was rescued by Jimmy, brought aboard, and put to dry behind the galley stove. The mooring lines were cast off and hauled aboard, and we were on our way down the river.

After the vessel was out in the bay the towboat made fast on the starboard quarter where she stayed until we got down to the jetties, then she took the hawser and towed us out through the jetties to the bar where we anchored about 1:30 P.M. The wind was light and from the east, head wind. The towboat let go the hawser, and with three blasts from her whistle as a parting salute she headed off toward Charleston. A skiff came alongside to get the pilot. Wishing the Old Man "A fair wind and a fast passage," the pilot boarded his skiff and headed back for Georgetown. We spent the afternoon washing clothes and whistling for a wind, but I guess we were somewhat out of tune as 8 P.M. came around, and the high fly or wind sock at the spanker topmast truck showed no sign of a breeze. We turned in early except for the man whose turn it was to stand anchor watch.

About 11:30 P.M. a light breeze sprang up from the southwest, and it was "All hands to get under way." The anchor was hove in, and at the same time the forestay-sail, jib, and flying jib were set, followed by the foresail, mainsail, mizzen, and reefed spanker, and the vessel filled away on the starboard tack about 1 A.M., November 20th. The fore, main, and mizzen topsails were set. The spanker topsail could not be set as the spanker was reefed. It took an hour and a half to heave in the anchor and set sail, but our work wasn't over, as the anchor came in with a turn in the cable and would not stow properly. After numerous attempts we got a messenger over the fluke of the anchor and hove it around so that it would go into the hawse pipe. The halyards and other running gear were coiled clear for running, or hung on pins, and at 2 A.M. the Mate sang out, "Watch below go below."

NOVEMBER 20th. The light southwest wind lasted about three hours, then shifted around to north-northwest and freshened up. The topsails were clewed up, and the lower sails gybed over on the port tack. The main topsail was shifted and set, but the fore and mizzen topsails were left hanging in the clew lines. We had a very red sunrise, the wind hauled around a little more to the northward, the sheets were trimmed in "by the wind," and the fore and mizzen topsails were shifted and set. The starboard hawse and chain pipes were plugged and cemented. The watch on deck spent the day scraping and varnishing the bitts and bright work on the corners of the deck houses. About noon the wind died out, and the topsails were clewed up. After supper the towing hawser was coiled down in the lazarette. The sun set clear and red which caused John to quote the sailors' adage, "When the sun goes down clear as a bell,

easterly winds sure as hell." We looked for Frying Pan light vessel ahead or a little on the port bow, but it wasn't until after dark that we picked up the light blinking a point or so off the port bow. During the first watch (8 P.M. to midnight) a light breeze sprang up from the east, but it was hardly enough to keep the sails full and steerageway on the vessel. During the night the wind remained light and variable, and we did not gain much on the light vessel. She bore east two or three miles off just before daylight.

NOVEMBER 21st. About 9 A.M. the Savannah Line steamer CITY OF CHATTANOOGA passed astern of us close aboard. The rails were lined with passengers and crew. A sailing vessel under way, even an old schooner, was getting to be an unusual sight in those days. About 9:30 we got a light breeze from south-southeast. The booms were hauled over on the starboard tack, the topsails shifted and set, and by 10:30 we had the light vessel abeam. The watch on deck, when not working the vessel, spent their time during the day painting the cap rails. The wind veered to southwest about 5 P.M. We clewed up the topsails and tried to wear ship, but she would not go around. A strong current was carrying her to the eastward, and the wind was not strong enough to overcome the current. The sun set red behind a heavy cloud bank and the breeze breshened up. The sails were gybed over on the port tack, and when the watch was changed at 8 P.M. the spanker was lowered and tied up as the sky to windward looked threatening, and the wind was increasing. By midnight it was blowing a strong breeze. The mizzen topsail, the only one set, was clewed up and made fast. The vessel was rolling along, almost before the wind in a rough sea, making about eight knots. The course toward Diamond Shoals light vessel was about northeast and the wind strong and steady from the southwest, so during the middle watch (midnight to 4 A.M.) we lowered the foresail and hauled down the flying jib because they would not draw. The mainsail was gybed over, and we ran directly before the wind, wing and wing.

NOVEMBER 22nd. By 6 A.M. the wind had gone around to the west, so we set the foresail and gybed the mainsail over on the port tack. After breakfast the watch on deck repaired the spanker, which had been damaged when we lowered it last. The wind kept increasing and the sea getting rougher. We went around Diamond Shoals light vessel at noon, making about ten knots and shipping seas over both rails. After we got about a mile to the eastward of the light vessel we hauled up on a course north. Seas and spray were coming aboard now, and the watch on deck could do no work. They stood by on the cabin trunk trying to keep dry and be ready for any emergency that might arise.

Chubby the cat had been marooned in the cabin, but the cabin was cold and damp, and perhaps there wasn't much for a cat to eat there. Anyway, she decided to go forward to the galley where it was warm and her friend Jimmy, the cook, would be sure to give her something to eat. She succeeded in getting safely across the deck load with nothing more than wet feet, and had almost reached the galley door, when a sea came over the starboard rail and half filled the deck. Chubby was washed across the deck and back again, but luckily for Chubby, Jimmy saw her and went to the rescue. Chubby, half drowned, was put to dry in the woodbox, back of the galley stove. Early in the afternoon, an Eastern Steamship Co. steamer, bound south, passed to windward, and the Morgan Line steamer EL COSTON, bound north, overhauled and passed us close aboard without much difficulty. Wind and sea moderated rapidly after we got around Hatteras, and we loosened and set the flying job. Late in the afternoon we ran out of the Gulf Stream and into green water, and soon we saw and heard Wimble Shoals buoy whistling away off the weather bow. The weather until this day had been warm, but now it was damp and chilly, and we realized that we were going north in the winter time, so we decided it was time to set up the bogie. During the first dog watch we fetched the little stove forward from the lazarette, where it had been stowed for the summer, and we secured it in place in the forecastle. The smoke pipe did not fit very well, but it was nice to have a little fire, and the wood smoke smelled rather pleasant.

We had Bodie Island light abeam at 8 P.M. The sky was overcast, the sea smooth, and there was very little wind. We could have been carrying the spanker and topsails for several hours, but the Old Man wasn't a driver, and he did not have much faith in the Mate's ability as a sailor. Any fool can set sail, but you have to be a sailor to take it in in a gale of wind. We, forward, hated to go drifting along under short sail with a fair wind blowing.

NOVEMBER 23rd. During the night we had a light westerly wind, the sky was cloudy, and it was quite cold. We sighted lots of steamers inshore, but none passed close to us. About four bells of the morning watch a thick fog set in. The fog horn (a large box containing a reed horn with bellows attached and worked by a handle on the outside of the box) was gotten up on the forecastle head and put in operation, two blasts at more or less regular intervals, the signal for a sailing vessel underway on the port tack. Visibility improved at about eight bells, and the signal was discontinued.

During the morning we set the spanker and the mizzen topsail. The wind hauled around to the northwest, and the sheets were trimmed in "by the wind". If the spanker and topsails had been set the day before when we had a fair wind we might have been almost to the latitude of Cape Henry. About noon the wind hauled more to the northward and freshened up. At 2 P.M. we took in the mizzen topsail and flying jib. An hour later all hands were called to reef the fore and main sails. The wind had increased to a fresh gale and kicked up a rough sea, which was breaking over the weather bow. The vessel was pitching and rolling some, and the deck load had started to work loose. As soon as we had the sails reefed and set we turned to on the deck load lashings and set them up. The vessel was now hove to on the port tack, heading about northeast with the wheel hard down and in the beckets.

NOVEMBER 24th. During the night the wind moderated, and by 6 A.M. it was a flat calm. The vessel lay in the trough of the sea, the sails slamming and banging across the deck as she rolled in the big swells. About 10 A.M. the Mate took a sight and estimated our position as thirty miles northeast of Diamond Shoals light vessel. A sounding showed twenty-four fathoms of water. We had set southeastward about twenty-five miles in the last fifteen or twenty hours.

The Dollar Line steamer PRESIDENT WILSON passed us close aboard during the morning, southward bound. We spent the day at various jobs such as making a new main topping lift from an old cargo runner we found on the dock, painting the windlass, and tightening reef points. The jaws on the mizzen boom began to work loose, and upon examining the boom closely it was found to be affected with dry rot. It looked sound from the outside, but the inside was rotten. We fished it with pieces of two-by-four, wire, and rope lashings tightened with wedges. It was calm all day, a regular Paddy's hurricane, and the sea was smooth as glass except for the heave of the swells. During the first watch (8 P.M. to midnight) we gybed the sails over several times trying to catch the cat's-paws that came from various quarters, but it was not until 2 A.M. that we got a gentle breeze from north-northwest and filled away on the port tack after about 22 hours of calm. The watch on the deck shook the reefs out of the main and fore sails, set the flying jib, and streamed the log.

NOVEMBER 25th. About 6 A.M. the wind hauled around to the northeast. We wore ship, set the fore, main, and mizzen topsails, and headed up on a course north by west (Var. 7° W). At noon, according to the Mate's calculations, Cape Henry bore west-north-west, forty-seven miles, and a sounding showed 16 fathoms of water. The course was changed to north to fetch Winter-Quarter light vessel. We did not do much work on deck, just stood our wheel watches and worked the vessel. The latter part of the day the wind went around a little more to the eastward but remained light.

To be concluded

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